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GROUNDWATER MONITORING
DATA SUMMARY REPORT
FIRST QUARTER 1996

DOUGLAS AIRCRAFT COMPANY C-6
FACILITY
TORRANCE, CALIFORNIA

K/J 944016.01

APRIL 1996

Kennedy/Jenks Consultants

**GROUNDWATER MONITORING DATA SUMMARY REPORT
FIRST QUARTER, 1996**

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TORRANCE, CALIFORNIA**

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1.0 INTRODUCTION

The Douglas Aircraft Company (DAC) C-6 Facility is located at 19503 South Normandie Avenue, Torrance, California (Figure 1). Quarterly groundwater sampling is being conducted in response to the California Regional Water Quality Control Board - Los Angeles Region correspondence to DAC, dated 7 April 1992. This report summarizes laboratory analytical data generated through the chemical analysis of groundwater samples collected between 29 February and 4 March, First Quarter 1996.

2.0 QUARTERLY MONITORING PROGRAM

First Quarter 1996 groundwater sampling was performed in accordance with standard sampling procedures. Static water level depths were measured on 29 February 1996 prior to initiating purging of groundwater from any observation. Static water depths on monitoring wells (MW-9, MW-18 and MW-19) located in the southern portion of the DAC property installed for the Montrose Chemical Corporation Remedial Investigation were not measured for this quarter.

Groundwater samples were collected from the following fifteen wells (Figure 2) and chemically analyzed for volatile organic compounds (VOCs) by EPA Method 8240/8260 for the First Quarter 1996.

WCC-1S, WCC-2S, WCC-3S, WCC-4S, WCC-5S, WCC-6S, WCC-7S, WCC-8S, WCC-9S, WCC-10S, WCC-11S, WCC-12S, WCC-1D, WCC-3D, and DAC-P1.

Table 1 summarizes observation well construction details. Tables 2 and 3 summarize the results of chemical analysis of groundwater samples and duplicates for major and minor constituents at the C-6 facility, respectively. Chemicals detected in samples from each observation well are shown in Figure 3. Table 4 summarizes available measured groundwater elevations to date. Estimated groundwater elevation contours for the First Quarter are presented in Figure 4. Historical chemical concentration profiles for the indicator chemicals trichloroethene and 1,1-dichloroethene are shown in Figure 5. Copies of laboratory data sheets, laboratory/field Quality Control data sheets, groundwater purge and sample forms, and Chain-of-Custody records are included in Appendices A, B, C, and D respectively.

2.1 Groundwater Sampling Procedures

Prior to collecting groundwater samples from each well, groundwater was purged using an electrical submersible pump that was temporarily installed in the observation well. After lowering the pump to the approximate mid-point of the saturated well screen, approximately three to five wetted casing volumes of groundwater were purged from the well until the following groundwater monitoring parameters had stabilized to within 10% of preceding values: pH, electrical conductivity, and temperature. Purged groundwater was stored onsite in DOT approved 55 gallon barrels pending the results of laboratory analysis of samples.

Following groundwater purging, the flow rate of the submersible pump was reduced to 250 to 500 milliliters/minute. To collect a representative groundwater sample, the pump intake valve was positioned at the approximate mid-point of the saturated well screen interval. The recovered water was discharged into three labeled 40-ml capacity vials, preserved with HCl.

2.2 Field QA/QC Procedures

Duplicate groundwater samples were collected for the sampling round on 29 February, and 1 and 4 March 1996 for quality control purposes. The duplicates were collected in three HCl-preserved vials and identified by inserting the collection date after "DW-" (DW-022996). No further sample identification was provided to the laboratory. Duplicate samples were taken on 29 February, 1 March, and 4 March, from observation wells WCC-1D, WCC-8S, and DAC-P1, respectively.

Following decontamination of the submersible pump, and prior to collection of groundwater samples from the successive well, an equipment rinsate blank was prepared for laboratory analysis. The equipment rinsate blank was prepared by pouring Reagent Grade II water, prepared by the analytical laboratory, over the pump and collecting the rinsate in two 40-ml vials preserved with HCl. The blanks were identified following a similar protocol to that used for duplicate water samples and are identified as "EB followed by the date". The wells sampled before and after rinsate blank preparation were recorded. EB022996, EB030196, and EB030496 were collected after sampling wells WCC-10, WCC-7S, and WCC-6S. Trip blanks were also analyzed for sampling and shipping activities for each day of sampling and are identified as trip blanks or travel blanks.

All groundwater, duplicate, and field blank samples were transported in ice-cooled chests to Curtis & Tompkins, Ltd., General Analytical Laboratory, Irvine, California using U.S. EPA-recommended Chain-of-Custody procedures.

3.0 EVALUATION OF ANALYTICAL RESULTS

3.1 Groundwater Gradient

Groundwater levels were measured prior to sampling on 29 February 1996 (Table 4 and Appendix C). The shallow zone groundwater elevations measured for this quarter ranged from 15.19 feet below mean sea level (MSL) to 17.02 feet below MSL. An estimated potentiometric surface map for the shallow zone as measured on this day is presented as Figure 4. The groundwater gradient in the shallow zone was generally south-southeast with a southerly directed trough-like depression between observation wells WCC-10S and WCC-4S.

Insufficient data (two wells) are available to define the groundwater gradient in the deeper zone. Groundwater elevations in the two wells (WCC-1D and WCC-3D) were approximately 16.15 and 15.95 feet below MSL, respectively.

3.2 Analytical Data

The results of chemical analysis of groundwater and duplicate samples are summarized in Tables 2 and 3. Table 2 lists major constituents and Table 3 lists additional minor constituents of samples tested. The duplicate groundwater samples are indicated by an asterisk and are presented with the "original" groundwater samples. These tables include cumulative analytical data for all monitoring wells and detection limits (where available) for the listed chemicals.

The following observations are noted:

- Data for groundwater samples collected from well DAC-P1, located at the upgradient property boundary, indicate a TCE concentration of 16,000 micrograms per liter ($\mu\text{g}/\text{L}$) coming onto DAC's property. Other chemicals detected in well DAC-P1 include 1,1-DCE, cis-1,2-DCE, and toluene. The concentrations of these chemicals were within historical ranges. Low level detections of 1,1-DCA, 1,1,1-TCA, and trans-1,2-DCE reported in the previous sample round for the first time in several years were not detected in this quarter's analysis. DAC-P1 is screened in the shallow zone.
- Background concentrations of TCE and 1,1-DCE in the shallow zone upgradient or cross gradient wells WCC-10S, WCC-2S, and WCC-11S decreased slightly, but are within historical ranges at concentrations of 21 to 170 $\mu\text{g}/\text{L}$ of TCE and less than 5 to 30 $\mu\text{g}/\text{L}$ of 1,1-DCE.
- Groundwater elevation data (Figure 4) and chemical concentration data (Figure 3) indicate that chemical transport in the shallow zone is generally in a southerly to southeasterly direction in the vicinity of buildings 36 and 41. Most chemical concentration data from the eastern boundary observation wells (WCC-5S, and WCC-9S) are within the same range or lower than upgradient or cross gradient "background level" wells (WCC-10S, WCC-2S and WCC-11S).
- WCC-3S data show decreases in 1,1-DCE and toluene for the fourth consecutive quarter, to the lowest concentrations within the historical range.
- Decreases of 1,1-DCE, 1,1,1-TCA, TCE, and toluene concentrations were observed in well WCC-3D, though the concentrations were within historical variation.
- Other chemical concentration variances within observation wells were typical of historical ranges.
- Analytical data from the equipment rinsate blanks, sample duplicates, trip blanks, and laboratory spikes and duplicates are indicative of reliable data. Low level detections of bromodichloromethane and chloroform in the rinsate blank from 1 March were not reported in the samples following the equipment blank and are not considered to be problematic.

TABLES

TABLE 1
OBSERVATION WELL CONSTRUCTION DETAILS
GROUNDWATER MONITORING DATA SUMMARY REPORT
FIRST QUARTER, 1996
DOUGLAS AIRCRAFT C-6 FACILITY
TORRANCE, CALIFORNIA
KJ 944016.01

Well	Date Constructed	Well Diameter (inches)	Total Depth of Borehole (Feet)	Depth of Screened Interval (Feet)	Depth to top of Sand Filter Pack (Feet)	Well Casing Material and Slot Size		Hydrogeologic Unit Screened
						Schedule 40 PVC 0.020-inch Slots		
WCC-1S ¹	3/26/87	2	91	78-88	72			Shallow
WCC-2S ¹	10/28/87	4	90.5	70-90	63	Schedule 40 PVC 0.010-inch Slots		Shallow
WCC-3S ¹	10/26/87	4	92	69-89	64	Schedule 40 PVC 0.010-inch Slots		Shallow
WCC-4S ¹	10/27/87	4	91.5	70.5-90.5	65	Schedule 40 PVC 0.010-inch Slots		Shallow
WCC-5S ¹	11/24/87	4	91	60-5-91	58.5	Schedule 40 PVC 0.010-inch Slots		Shallow
WCC-6S ²	9/22/89	4	91	60-90	N/A ³	Schedule 40 PVC 0.010-inch Slots		Shallow
WCC-7S ²	6/8/89	4	90.5	60-90	54	Schedule 40 PVC 0.010-inch Slots		Shallow
WCC-8S ²	6/12/89	4	90	59.5-89.5	54	Schedule 40 PVC 0.010-inch Slots		Shallow
WCC-9S ²	9/21/89	4	91.5	60-90	55	Schedule 40 PVC 0.010-inch Slots		Shallow
WCC-10S	6/7/89	4	90.8	60-90	54	Schedule 40 PVC 0.010-inch Slots		Shallow
WCC-11S	N/A	4	N/A	60-90(?)	N/A	Schedule 40 PVC 0.010-inch Slots		Shallow
WCC-12S	N/A	4	N/A	60-90(?)	N/A	Schedule 40 PVC 0.010-inch Slots		Shallow
DAC-P ¹	9/25/89	4	N/A	60-90(?)	N/A	Schedule 40 PVC 0.010-inch Slots		Shallow
WCC-1D ²	6/30/89	4	140	120-140	115	Schedule 40 PVC 0.010-inch Slots		Deeper
WCC-3D ²	6/27/89	4	140	120-140	114	Schedule 40 PVC 0.010-inch Slots		Deeper
MW-8 ⁴	5/10/89	4	85	65-80	62	PVC blank and 316 Stainless Steel 0.020-inch Slot Screen		Shallow
MW-9 ⁴	5/19/89	4	85	66-81	61	PVC blank and 316 Stainless Steel 0.020-inch Slot Screen		Shallow
MW-18 ⁴	3/29/90	4	84	68-83	67	PVC blank and 316 Stainless Steel 0.020-inch Slot Screen		Shallow
MW-19 ⁴	3/30/90	4	80	63-79	62	PVC blank and 316 Stainless Steel 0.020-inch Slot Screen		Shallow

NOTES:

1. Data from Woodward-Clyde Consultants Phase II Report, May 1988
2. Data from Woodward-Clyde Consultants Phase III Report, March 1990
3. N/A = Not Available
4. Data from Hargis + Associates, Final Draft, Remedial Investigation, Montrose Site, Torrance, Ca, October 1992

TABLE 2
SUMMARY OF GROUNDWATER ANALYTICAL DATA - MAJOR CONSTITUENTS
GROUNDWATER MONITORING DATA SUMMARY REPORT
FIRST QUARTER 1986
DOUGLAS AIRCRAFT C-6 FACILITY
TORRANCE, CA

WELL I.D.	SAMPLE DATE	COMPOUNDS DETECTED BY EPA METHOD 8240 OR EPA METHOD 8240/8260 - All results in ug/l				MBK	TCE	ch-12-DCE	trans-12-DCE	CHLOROFORM	BENZENE	TOLUENE	MEK
		1,1-DCE	1,1-DCA	1,1-TCA	MBK								
WCC-1S	03/27/87	2,800	-	300	4,600	-	-	-	-	85	-	-	-
	04/13/87	3,700/2,500	4-	260/120	5,500/3,600	4-	4-	4-	4-	110	-	-	-
	11/12/87	3,000	23	160	5,200	<100	2,400	<20	<20	39	160	<20	-
	07/13/89	900	<20	67	-	<100	-	41	<30	<30	<30	-	-
	08/23/89	1,500	30	<30	2,800	<100	-	-	-	-	-	-	-
	11/18/91	1,300	-	-	3,700	-	-	-	-	-	-	-	<100
	06/17/92	1,700	<50	<50	3,800	<100	<5	<50	<50	<50	<50	<50	<5
	09/23/92	1,500	13	16	3,400	<5	<1	14	13	37	1	<30	<100
	12/09/92	1,500	<30	<30	3,100	<100	<30	<30	<30	30	<30	<30	<100
	03/18/93	1,000	13	15	2,100	<5	27	15	14	33	<2	<20	<10
	06/08/93	1,200	<20	<20	2,400	<200	27	<20	<20	35	<20	<400	<400
	08/25/93	1,700	<20	<20	3,300	<200	27	<20	<20	42	<20	<400	<400
	11/19/93	1,600	<20	<20	2,600	<200	25	<20	<20	38	<20	<400	<400
	2/24/94	1,800	<20	<20	2,700	<200	33	21	21	39	<20	<400	<400
	6/13/94	1,000	11	11	1,700	<100	20	16	16	<10	<10	<200	<200
	8/9/94	1,400	<40	<40	2,300	<400	<40	<40	<40	40	<40	<400	<400
	12/22/94	3,000	23	24	3,100	<200	38	36	36	57	<20	<400	<400
	3/14/95	2,000	<20	<20	2,300	<200	22	22	22	34	<20	<400	<400
	6/13/95	2,700	20	<20	3,200	<200	29	31	<20	45	<20	<400	<400
	8/7/95	1,800	22	22	2,600	<10	37	37	16	51	<5	<10	nr
	12/15/95*	2,900/2,800	26/26	22/22	2,600/2,500	nr	34/33	40/40	17/16	42/42	<20	<20	<40
	3/04/96	3,000	27	24	2,700	<40	35	45	<20	-	-	-	-
WCC-2S	11/02/87	5	-	5	4	-	-	-	-	-	-	-	-
	11/12/87	2	-	<1	5	<5	<5	<1	<1	<1	1	-	-
	7/13/89	<1	<1	<1	3	<5	<5	<1	<1	<1	1	-	-
	8/23/89	-	-	8	110	-	-	-	-	-	75	-	-
	11/19/91	30	-	<5	100	<10	<5	<5	<5	<5	<5	<10	<10
	06/16/92	30	<5	<1<1	110/97	<5/<5	<1/<1	<1/<1	<1/<1	<1/<1	1/1	<5<5	<5<5
	09/22/92	18/19	<1<1	<1<1	140/99	<5/<5	<1/<1	<1/<1	<1/<1	<1/<1	<1/<1	<10<10	<10<10
	*12/08/92	49/7	<1<1	22	110/100	<5/<5	<2/<2	<2/<2	<2/<2	<2	<2	<40	<40
	03/17/93	32/33	<2<2	<2<2	150	<20	<2	<2	<2	<2	<2	<40	<40
	06/07/93	48	<2	<2	90	<20	<2	<2	<2	<2	<2	<40	<40
	08/24/93	16	<2	<2	94	<20	<2	<2	<2	<2	<2	<40	<40
	11/19/93	41	<2	<2	96	<20	<2	<2	<2	<2	<2	<40	<40
	2/24/94	30	<2	<2	97	<20	<2	<2	<2	<2	<2	<40	<40
	6/10/94	24	<2	<2	150	<20	<2	<2	<2	<2	<2	<40	<40
	9/8/94	37	<2	<2	110	<20	<2	<2	<2	<2	<2	<40	<40
	12/22/94	28	<2	<2	160	<20	<2	<2	<2	<2	<2	<40	<40
	3/13/95	27	<2	<2	130	<20	<2	<2	<2	<2	<2	<40	<40
	6/12/95	30	<2	<2	200	<10	<5	<5	<5	<5	<5	<10	nr
	9/6/95	58	15	<2	60	<10	<2	<2	<2	<2	<2	<5	<5
	12/15/95	45	<5	<5	21	-	-	-	-	-	-	-	-
	3/01/96	-	-	-	-	-	-	-	-	-	-	-	-

1 • Duplicate sample also analyzed. 2 - Not Detected (Detection Limit not specified). 3 - nr: Not Reported 4 ** Estimated

TABLE 2
SUMMARY OF GROUNDWATER ANALYTICAL DATA - MAJOR CONSTITUENTS
GROUNDWATER MONITORING DATA SUMMARY REPORT
FIRST QUARTER 1988
DOUGLAS AIRCRAFT C-8 FACILITY
TORRANCE, CA

COMPOUNDS DETECTED BY EPA METHOD 8240 OR EPA METHOD 8240/8260 - All results in ug/l

WELL ID.	SAMPLE DATE	COMPOUNDS DETECTED BY EPA METHOD 8240 OR EPA METHOD 8240/8260 - All results in ug/l										MEK
		1,1-DCE	1,1-DCA	1,1-TCA	TCE	MBK	ctb-1,2-DCE	trans-1,2-DCE	CHLOROFORM	BENZENE	TOLUENE	
WCC-3S	11/02/87	38,000	-	110,000	10,000	54,000	-	-	-	-	80,000	-
	11/12/87	88,000	1,000	54,000	11,000	70,000	<500	1,000	660	<500	140,000	-
	7/13/88	18,000	<500	56,000	7,700	<3000	<500	<1,000	250	250	32,000	-
	08/23/88	58,000	<1,000	78,000	6,000	<5000	<1,000	-	<5,000	<5,000	56,000	-
	11/14/89	12,000	400	6,900	7,800	70,000	550	550	250	250	27,000	12,000
	06/17/92	25,000	<5,000	13,000	13,000	100,000	<5,000	<5,000	<5,000	<5,000	51,000	<10,000
	09/23/92	22,000	<500	7,800	12,000	82,000	<500	<500	<500	<500	52,000	<3,000
	12/09/92	21,000	<500	5,600	11,000	90,000	700	600	<500	<500	44,000	4,000
	'03/18/93	20,000/20,000	650/510	21,000/22,00	8,800/8,800	44,000/45,000	650/6540	640/670	120/110	240/260	42,000/42,000	<50/<50
	06/08/93	16,000	420	5,900	8,600	78,000	520	480	<100	210	37,000	<2,000
	'08/25/93	21,000/20,000	500/560	10,000/9,500	11,000/8,700	50,000/49,000	670/700	680/710	<400/<10	<400/250	46,000/40,000	<8,000/660
	11/19/93	26,000	650	19,000	10,000	47,000	1,100	840	<200	280	50,000	<4,000
	2/24/94	15,000	310	9,600	2,500	15,000	2,500	360	<200	<200	25,000	<4,000
	6/13/94	13,000	310	6,200	820	9,900	4,100	360	<200	<200	23,000	<4,000
	*9/9/94	23,000/25,000	520/560	9,000/9,800	<500/<500	6,000/5,000	7,700/8,400	600/640	<500/<500	<500/<500	43,000/47,000	<10,000/<10,000
	12/22/94	20,000	440	6,700	390	3,400	6,700	530	<200	200	35,000	<4,000
	3/14/95	24,000	570	8,700	2,300	4,600	6,200	670	<200	230	40,000	<4,000
	6/13/95	22,000	450	4,800	1,200	8,600	6,300	500	<400	39,000	<8,000	<2,000
	9/7/95	13,000	480	4,100	910	4,600	6,000	520	78	220	31,000	nr
	12/16/95	12,000	350	3,100	670	4,400	4,400	450	130	<23000	15,000	<100
	3/04/96	8,400	230	1,900	480	200	3,200	280	<50	100	-	-
WCC-4S	11/02/87	360	-	14	700	-	-	-	2	2	-	-
	11/12/87	1,200	-	35	690	-	10	<3	<3	<3	<5	<5
	7/13/89	170	<3	11	270	<20	15	<5	<5	<5	<5	<5
	08/23/89	360	<5	7	410	<20	<50	-	-	-	-	-
	11/18/91	1,000	<25	20	2,200	<20	<25	<25	<25	<25	<25	<50
	06/17/92	920	<10	25	1,500	<50	<50	<10	10	<10	<10	<50
	09/23/92	1,400	<10	20	1,900	<50	<10	<10	10	<10	<10	<50
	12/08/92	1,000	<10	20	1,600	<50	10	<10	10	<10	<10	<50
	03/17/93	810	8	14	1,200	<5	8	5	5	5	<2	<10
	06/08/93	1,300	<10	12	1,800	<100	10	<10	<10	<10	<10	<200
	08/25/93	1,100	<10	10	1,400	<100	<10	<10	<10	<10	<10	<200
	11/19/93	610	17	8	700	<40	6	5	4	4	9	<80
	2/24/94	1,100	5,8	8,8	980	<10	8,7	7,2	5,1	6,4	<4	<80
	6/14/94	800	<4	5	940	<40	7,1	5,2	<4	<4	<4	<80
	9/9/94	1,000	<20	20	1,300	<200	<20	<20	<20	<20	<20	<400
	12/22/94	670	<10	10	750	<100	<10	<10	<10	<10	<10	<200
	3/14/95	400	8,8	4,9	450	<40	4,9	<4	<4	<4	<4	<80
	6/13/95	1,100	8,6	<6,6	1,100	<88	7,9	<6,6	7	7	<6,6	<130
	9/7/95	910	6	6	1,200	<10	10	9	7	7	<5	<10
	12/15/95	1,100	4	2	770	<10	8	8	7	2	<2	<5
	3/04/96	710	<5	-	-	-	-	-	-	-	-	<10

1 • Duplicate sample also analyzed. 2 - Not Detected (Detection Limit not specified). 3 - nr: Not Reported 4 ** Estimated

TABLE 2
SUMMARY OF GROUNDWATER ANALYTICAL DATA - MAJOR CONSTITUENTS
GROUNDWATER MONITORING DATA SUMMARY REPORT
FIRST QUARTER 1986
Douglas Aircraft C-6 Facility
Torrance, CA

1 ** Duplicate sample also analyzed. 2 - Not Detected (Detection Limit not specified). 3 - nr: Not Reported 4 -- Estimated

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FIRST QUARTER 1996
DOUGLAS AIRCRAFT C-6 FACILITY
TORRANCE, CA

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GROUNDWATER MONITORING DATA SUMMARY REPORT
FIRST QUARTER 1998
DOUGLAS AIRCRAFT C-6 FACILITY
TORRANCE, CA

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GROUNDWATER MONITORING DATA SUMMARY REPORT
FIRST QUARTER 1996
DOUGLAS AIRCRAFT C-6 FACILITY
TORRANCE, CA

COMPOUNDS DETECTED BY EPA METHOD 8240 OR EPA METHOD 8240/8260 - All results in ug/l.												
WELL I.D.	SAMPLE DATE	1,1-DCE	1,1,1-DCA	1,1,1-TCA	TCE	MIBK	cis-1,2-DCE	trans-1,2-DCE	CHLOROFORM	BENZENE	TOLUENE	MEK
WCC-3D	07/25/89 08/23/89	<1 <10	<1 32	49 60	<10 -	<5 <50	11 -	<1 <10	<1 -	<1 <10	3 -	-
	11/14/91	20	-	880	23	<10	-	-	-	-	-	-
	06/16/92	510	<5	27	<5	<1	<5	<5	<5	<5	<10	<5
	09/22/92	21	<1	130	5	<5	<1	<1	<1	<1	<1	<1
	12/07/92	120	<1	130	5	<5	<1	<1	<1	<1	3	<5
	*03/16/93	950/1,000	6/6	2,000/2,000	50/47	<5/<5	2/2	9/9	<2/<2	<2/<2	6/6	<10/<10
	06/08/93	110	<2	110	6	<20	<2	<2	<2	<2	<2	<40
	08/24/93	120	<2	100	5	<20	<2	<2	<2	<2	3	<40
	*11/18/93	610/840	<2/<4	410/640	17/723	<20/<40	<2/4	4/4	<2/4	<2/4	6/8	<40/<80
	2/23/94	370/420	<4/<4	530/590	23/25	<40/<40	<4/<4	<4/<4	<4/<4	<4/<4	12/13	<80/<80
	6/13/94	720	<10	1,300	96	<100	<10	<10	<10	<10	<10	<200
	9/19/94	3,700	<50	5,600	490	<500	<50	<50	<50	<50	<50	<1,000
	12/21/94	5,200	10	6,300	540	<40	15	22	<4	8.6	5,100	<80
	*3/14/95	3,300/3,200	<40/<20	4,000/3,900	370/380	<400/<200	<40/<20	<40/<20	<40/<20	<40/<20	3,200/3,400	<800/<400
	6/13/95	1,800	<10	2,100	200	<100	<10	<10	<10	<10	1,700	<200
	9/7/95	3,400	13	4,100	520	170	60	30	<5	13	4,700	<10
	12/16/95	111	<2	90	32	nr	3	<2	<2	<2	88	nr
	3/04/96	53	<5	40	23	<10	<5	<5	<5	<5	6	<10

Notes:

ug/l = micrograms per liter

1,1-DCE = Dichloroethene

1,1-DCA = Dichloroethane

1,1,1-TCA = 1,1,1-Trichloroethane

TCE = Trichloroethene

MIBK = Methyl Isobutyl ketone

cis-1,2-DCE = cis-1,2-Dichloroethene

trans-1,2-DCE = trans-1,2-Dichloroethene

MEK = Methyl ethyl ketone

TABLE 3
SUMMARY OF GROUNDWATER ANALYTICAL DATA - MINOR CONSTITUENTS
GROUNDWATER MONITORING DATA SUMMARY REPORT
FIRST QUARTER 1996
DOUGLAS AIRCRAFT C-6 FACILITY
TORRANCE, CA

WELL I.D.	SAMPLE DATE	COMPOUNDS DETECTED BY EPA METHOD 8240 OR EPA METHOD 8240/8260 - All results in ug/l.						1,2-DCA	
		Acetone	Total Xylenes	Trichloro-fluoromethane	Methylene Chloride	Carbon Tetrachloride	1,1,2-TCA	PCE	
WCC-1S	03/27/87	-	-	-	-	-	-	-	-
	*04/13/87	-	-	-	-	-	-	-	-
	11/12/87	-	-	-	-	-	-	-	-
	07/13/89	-	-	-	-	-	-	-	-
	08/23/89	-	-	-	-	-	-	-	-
	11/18/91	-	-	-	-	-	-	-	-
	06/17/92	<300	<1	<1	4	<1	<1	22	<1
	09/23/92	<5	<10	<30	40	<30	<30	<30	<20
	12/09/92	<10	<2	<5	<10	<5	<2	<5	2
	03/18/93	<10	<20	<20	<100	<20	<20	<20	<20
	06/18/93	<400	<20	<20	<40	<20	<20	<20	<20
	08/25/93	<400	<20	<20	<100	<20	<20	<20	<20
	11/19/93	<400	<20	<20	<100	<20	<20	<20	<20
	2/24/94	<400	<20	<20	<100	<20	<20	<20	<20
	6/13/94	<200	<30	<10	<50	<10	<10	<10	<10
	9/19/94	<800	<120	<40	<200	<40	<40	<40	<40
	12/22/94	<400	<40	<20	<100	<20	<20	<20	<20
	3/14/95	<400	<40	<20	<100	<20	<20	<20	<20
	6/13/95	<400	<20	<20	<100	<20	<20	<20	<20
	9/7/95	<10	<5	<5	<5	<5	<5	<5	<5
	*12/15/95	<2/<2	<4/<4	<2/<2	<20	<20	<20	<20	<20
	3/04/96	<40	<40	<20	<20	<20	<20	<20	<20

1 • Duplicate sample also analyzed. 2 - Not Detected (Detection Limit not specified)

TABLE 3
SUMMARY OF GROUNDWATER ANALYTICAL DATA - MINOR CONSTITUENTS
GROUNDWATER MONITORING DATA SUMMARY REPORT
FIRST QUARTER 1998
DOUGLAS AIRCRAFT C-6 FACILITY
TORRANCE, CA

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GROUNDWATER MONITORING DATA SUMMARY REPORT
FIRST QUARTER 1996
DOUGLAS AIRCRAFT C-6 FACILITY
TORRANCE, CA

COMPOUNDS DETECTED BY EPA METHOD 8240 OR EPA METHOD 8240/8260 - All results in ug/l.											
WELL I.D.	SAMPLE DATE	Acetone	Total Xylenes	Trichloro-fluoromethane	Methylene Chloride	Carbon Tetrachloride	1,1,2-TCA	PCE	Carbon Disulfide	Ethy-Benzene	1,2-DCA
WCC-4S	11/02/87	-	-	-	-	-	-	-	-	-	-
	11/12/87	-	-	-	-	-	-	-	-	-	-
	08/23/89	-	-	-	-	-	-	-	-	-	<10
	11/18/91	-	<150	-	<10	20	<10	<10	<10	<10	<10
	06/17/92	<50	<50	<10	<10	50	<10	<10	<10	<10	<10
	12/08/92	<50	<10	<5	<10	<5	<2	<2	<2	<2	<2
	03/17/93	<10	<2	<10	<40	<10	<20	<10	<10	<10	<10
	06/08/93	<200	<10	<10	<20	<10	<20	<10	<10	<10	<10
	08/25/93	<200	<10	<4	<20	<4	<8	<4	<4	<4	<4
	11/19/93	<80	<4	<4	<20	<4	<8	<4	<4	<4	<4
	2/24/94	<80	<4	<4	<20	<4	<8	<4	<4	<4	<4
	6/13/94	<80	<12	<4	<20	<4	<8	<4	<4	<4	<4
	9/9/94	<400	<60	<20	<100	<20	<40	<20	<20	<20	<20
	12/22/94	<200	<20	<10	<50	<10	<20	<10	<10	<10	<10
	3/14/95	<80	<8	<4	<20	<4	<8	<4	<4	<4	<4
	6/13/95	<130	<6.6	<6.6	<33	<6.6	<13	<6.6	<6.6	<6.6	<6.6
	9/7/95	<10	<5	<5	<5	<5	<5	<5	<5	<5	<5
	12/15/95	<2	<4	<2	<2	<2	<2	<2	<2	<2	<2
	3/4/96	<10	<5	<5	<5	<5	<5	<5	<5	<5	<5
WCC-5S	11/30/87	-	-	-	-	-	-	-	-	-	-
	01/08/88	-	-	-	-	-	-	-	-	-	-
	*07/13/89	-	-	-	-	-	-	-	-	-	-
	08/23/89	-	-	-	-	-	-	-	-	-	-
	11/19/91	-	-	-	-	-	-	-	-	-	-
	06/15/92	<10	<5	<1	<5	3	3	<10	<2	<2	<2
	09/21/92	<5	<1	<2	<2	<2	<4	<2	<2	<2	<2
	12/07/92	<5	<1	<2	<2	<2	<4	<2	<2	<2	<2
	03/16/93	<10	<5	<1	<5	<10	<2	<2	<2	<2	<2
	06/07/93	<40	<2	<2	<2	<4	<2	<2	<2	<2	<2
	08/24/93	<40	<2	<2	<2	<4	<2	<2	<2	<2	<2
	11/18/93	<40	<2	<2	<2	<10	<2	<2	<2	<2	<2
	2/23/94	<40	<2	<2	<2	<10	<2	<2	<2	<2	<2
	*6/10/94	<40-<40	<6/<6	<2-<2	<20-<20	<20-<20	<4/<4	<2/<2	<2	<2	<2
	9/8/94	<40	<6	<2	<10	<2	<4	<2	<2	<2	<2
	12/21/94	<40	<4	<2	<10	<2	<4	<2	<2	<2	<2
	3/13/95	<40	<4	<2	<10	<2	<4	<2	<2	<2	<2
	6/12/95	<40	<2	<2	<5	<5	<2	<2	<2	<2	<2
	9/6/95	<10	<5	<2	<5	<5	<2	<2	<2	<2	<2
	12/12/95	<2	<4	<2	<5	<5	<2	<2	<2	<2	<2
	2/29/96	<10	<5	<5	<5	<5	<5	<5	<5	<5	<5

1 • Duplicate sample also analyzed. 2 - Not Detected (Detection Limit not specified)

TABLE 3
SUMMARY OF GROUNDWATER ANALYTICAL DATA - MINOR CONSTITUENTS
GROUNDWATER MONITORING DATA SUMMARY REPORT
FIRST QUARTER 1996
DOUGLAS AIRCRAFT C-6 FACILITY
TORRANCE, CA

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FIRST QUARTER 1996
DOUGLAS AIRCRAFT C-6 FACILITY
TORRANCE, CA

		COMPOUNDS DETECTED BY EPA METHOD 8240 OR EPA METHOD 8240/8260 - All results in ug/l.									
WELL I.D.	SAMPLE DATE	Acetone	Total Xylenes	Trichloro-fluoromethane	Methylene Chloride	Carbon Tetrachloride	1,1,2-TCA	PCE	Carbon Disulfide	Ethy-Benzene	1,2-DCA
WCC-8S	07/13/89	-	-	-	-	-	-	-	-	-	-
	08/23/89	-	-	-	-	-	-	-	-	-	-
	11/15/91	<150/<300	-	<20	40	<20	<20	<20	<20	<20	<20
	09/23/92	<100	<20	<20	30	<20	<20	<20	<20	<20	<20
	12/08/92	<100	<20	<2	<5	<5	<2	<5	<2	<2	<2
	03/17/93	<10	<20	<20	<100	<20	<40	<20	<20	<20	<20
	06/08/93	<400	<20	<20	<40	<20	<40	<20	<20	<20	<20
	08/25/93	<400	<20	<20	<100	<20	<40	<20	<20	<20	<20
	11/19/93	<400	<20	<20	<100	<20	<40	<20	<20	<20	<20
	2/24/94	<400	<20	<20	<100	<20	<40	<20	<20	<20	<20
	6/13/94	<800	<120	<40	<200	<40	<80	<40	<40	<40	<40
	9/9/94	<1000	<150	<50	<250	<50	<100	<50	<50	<50	<50
	12/22/94	<400	<40	<20	<100	<20	<40	<20	<20	<20	<20
	3/14/95	<800	<80	<40	<200	<40	<80	<40	<40	<40	<40
	6/13/95	<800	<40	<40	<200	<40	<80	<40	<40	<40	<40
	9/7/95	<10	<5	<5	<5	<5	<5	<5	<5	<5	<5
	12/15/95	<2	<4	<2	<2	<2	<2	<2	<2	<2	<2
	*3/01/96	<40/<40	<40/<40	<20/<20	<20/<20	<20/<20	<20/<20	<20/<20	<20/<20	<20/<20	<20/<20
WCC-9S	10/06/89	-	-	-	-	-	-	-	-	-	-
	11/19/91	-	-	-	-	-	-	-	-	-	-
	06/15/92	<30	<1	<1	10	<1	<1	<1	<1	<1	<1
	09/21/92	<5	<1	<1	3	<1	<1	<1	<1	<1	<1
	12/07/92	<5	<1	<5	<10	<5	<2	<2	<2	<2	<2
	03/16/93	<10	<2	<2	<2	<2	<2	<2	<2	<2	<2
	*06/07/93	<40/<40	<2/<2	<2	<4	<4	<2	<4	<2	<2	<2
	08/24/93	<40	<2	<2	<10	<2	<2	<2	<2	<2	<2
	11/18/93	<40	<2	<2	<10	<2	<2	<2	<2	<2	<2
	2/24/94	<40	<4	<2	<10	<2	<4	<2	<2	<2	<2
WCC-9S	6/10/94	<40	<6	<2	<20	<2	<4	<2	<2	<2	<2
	9/8/94	<40	<6	<2	<10/<10	<2	<4/<4	<2	<2	<2	<2
	*12/21/94	<40/<40	<4/<4	<2/<2	<10/<10	<2	<4/<4	<2	<2	<2	<2
	3/13/95	<40	<4	<2	<10	<2	<4	<2	<2	<2	<2
	*6/12/95	<40/<40	<2/<2	<2	<10/<10	<5	<5	<4/<4	<5	<5	<5
	9/6/95	<10	<4	<2	<2	<5	<5	<5	<5	<5	<5
	12/12/95	<2	<10	<5	<5	<5	<5	<5	<5	<5	<5
	2/29/96	<10	<10	<5	<5	<5	<5	<5	<5	<5	<5

1 * Duplicate sample also analyzed. 2 - Not Detected (Detection Limit not specified)

TABLE 3
SUMMARY OF GROUNDWATER ANALYTICAL DATA - MINOR CONSTITUENTS
GROUNDWATER MONITORING DATA SUMMARY REPORT
FIRST QUARTER 1986
DOUGLAS AIRCRAFT C-6 FACILITY
TORRANCE, CA

1 • Duplicate sample also analyzed. 2 - Not Detected (Detection Limit not specified)

TABLE 3
SUMMARY OF GROUNDWATER ANALYTICAL DATA - MINOR CONSTITUENTS
GROUNDWATER MONITORING DATA SUMMARY REPORT
FIRST QUARTER 1996
DOUGLAS AIRCRAFT C-6 FACILITY
TORRANCE, CA

1 • Duplicate sample also analyzed. 2 - Not Detected (Detection Limit not specified)

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SUMMARY OF GROUNDWATER ANALYTICAL DATA - MINOR CONSTITUENTS
GROUNDWATER MONITORING DATA SUMMARY REPORT
FIRST QUARTER 1996
DOUGLAS AIRCRAFT C-6 FACILITY
TORRANCE, CA

Notes

ug/l = micrograms per liter
PCE = Tetrachloroethene
1,1,2-TCA=1,1,2-Trichloroethane
1,2-DCA = 1,2-Dichloroethane

1 * Duplicate sample also analyzed. 2 - Not Detected (Detection Limit not specified)

TABLE 4

SUMMARY OF GROUNDWATER ELEVATION DATA
 FIRST QUARTER 1996
 DOUGLAS AIRCRAFT C-6 FACILITY
 TORRANCE, CALIFORNIA
 K/J 944016.01

Page 1 of 2

Observation Well	Reference Point ¹ Elevation (Feet Above MSL) ²	Water Level Elevation (Feet Above Mean Sea Level)								
		2/23/94	6/10/94	9/8/94	12/21/94	3/13/95	6/12/95	9/20/95	12/12/95	2/29/96
WCC-1S	50.7	-17.61	-17.23	-17.25	-17.12	-16.53	-16.27	-16.05	-15.80	
WCC-2S	50.59	-17.49	-17.07	-17.2	-17.17	-17.08	-16.37	-16.19	-15.86	-15.77
WCC-3S	51.19	-17.67	-17.19	-17.31	-17.28	-17.22	-16.58	-16.37	-16.06	-15.93
WCC-4S	49.69	-17.77	-17.32	-17.37	-17.31	-17.23	-16.61	-16.38	-16.16	-17.02
WCC-5S	48.22	-17.78	-17.33	-17.33	-17.25	-17.19	-16.56	-16.35	-16.14	-16.02
WCC-6S	50.95	-17.92	-17.48	NM ³	-17.45	-17.36	16.75	-16.64 ⁴	-16.30	-16.17
WCC-7S	48.29	-18.22	-17.82	-17.8	-17.74	-17.54	-17.03	-16.82	-16.59	-16.46
WCC-8S	50.56	-17.49	-17.11	-17.14	-17.12	-17.29	-16.42	-16.16	-15.89	-15.76
WCC-9S	47.01	-18.09	-18.63	-19.08	-17.51	-17.41	-16.79	-16.64	-16.39	-16.49
WCC-10S	51.12	-17.07	-16.67	-17.03	-16.97	-16.56	-16.05	-15.89	-15.54	-15.22
WCC-11S	49.97	-16.96	-16.45	-16.58	-16.63	-16.48	-15.83	-15.59	-15.35	-15.19
WCC-12S	46.92	-18.13	-17.74	-17.79	-17.67	-17.63	-17.00	-16.79	-16.54	-16.40
DAC-P1	52.44	-16.74	-16.6	-16.48	-16.25	-16.41	-15.94	-15.66	-15.66	-15.40
WCC-1D	50.45	-17.83	-17.47	-17.66	-17.55	-17.36	-16.79	-16.60	-16.31	-16.15
WCC-3D	51.18	-18	-17.39	-17.47	-17.42	-17.27	-16.67	-16.47	-16.17	-15.95
MW-8 ⁵	49.09	N/A ⁶	NA	NA	NA	NA	NA	NA	NA	NA
MW-9 ⁵	48.67	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-18 ⁵	50.29	NA	NA	NA	NA	NA	-18.91	NA	NA	NA
MW-19 ⁵	46.55	NA	NA	NA	NA	NA	-18.06	NA	NA	NA

Notes:

1. Reference point is north side, top of well casing
2. Reference point elevation measured by Hargis + Associates, Inc.
3. Water Level Elevation not measured due to wellhead obstructions.
4. Well WCC-6S could not be opened on 20 September 1995. The water level elevation shown was measured on 6 September 1995.
5. Installed by Hargis + Associates, Inc. for Montrose Chemical Corporation
6. NA - Not Available

TABLE 4

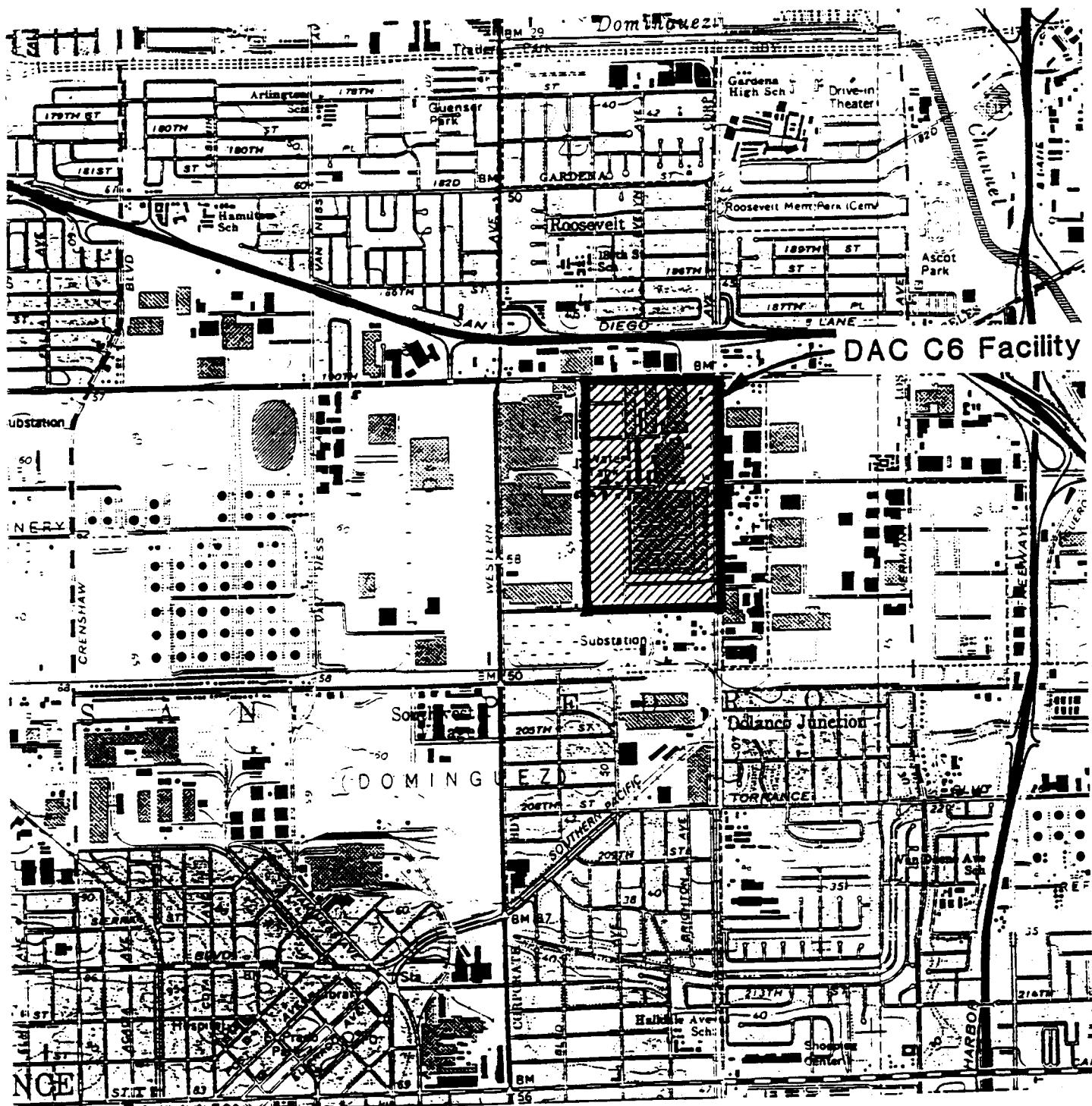
SUMMARY OF GROUNDWATER ELEVATION DATA
FIRST QUARTER, 1996
DOUGLAS AIRCRAFT C-6 FACILITY
TORRANCE, CALIFORNIA

Observation Well	Reference Point ¹ Elevation (Feet Above MSL) ²	Water Level Elevation (Feet Above Mean Sea Level)								
		11/13/87 ³	10/18/89 ⁴	6/15/92	9/21/92	1/5/93	4/9/93	6/7/93	8/24/93	11/18/93
WCC-1S	50.7	-21.63	-19.48	-19.2	-19.42	-19.34	-18.79	-18.75	-18.25	-18
WCC-2S	50.59	-19.72	-19.06	-19.15	-19.41	-19.51	-18.64	-18.63	-18.15	-17.87
WCC-3S	51.19	-21.56	-19.42	-19.24	-19.52	-19.73	-18.83	-18.82	-18.36	-18.01
WCC-4S	49.69	-21.77	-19.59	-19.22	-19.49	-19.34	-18.86	-18.78	-18.37	-18.16
WCC-5S	48.22	NA ⁵	-19.7	-19.13	-19.42	-19.32	-18.83	-18.78	-18.38	-18.13
WCC-6S	50.95	NA	-19.7	-19.4	-19.64	-19.5	-19.03	-18.97	-18.55	-18.32
WCC-7S	48.29	NA	-20.07	-19.63	-19.93	-19.76	-19.3	-19.23	-18.83	-18.6
WCC-8S	50.56	NA	-19.35	-19.11	-19.34	-19.19	-18.69	-18.61	-18.19	-17.89
WCC-9S	47.01	NA	-20.07	-19.44	-19.66	-19.56	-19.09	-19.09	-18.69	-18.42
WCC-10S	51.12	NA	-18.42	-18.94	-19.33	-19.1	-18.42	-18.33	-17.83	-17.54
WCC-11S	49.97	NA	NA	-17.62	-18.81	-18.69	-18.13	-18.04	-17.6	-17.36
WCC-12S	46.92	NA	NA	-19.6	-19.9	-19.74	-19.26	-19.2	-18.78	-18.58
DAC-P1	52.44	NA	NA	-17.76	-17.88	-18.02	-17.46	-17.38	-17.03	-16.76
WCC-1D	50.45	NA	-19.51	-19.55	-19.92	-19.61	-19.1	-19	-18.53	-18.34
WCC-3D	51.18	NA	-19.38	-19.39	-19.71	-20.52	-18.87	-18.85	-18.4	-18.18
MW-8 ⁶	49.09	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-9 ⁶	48.67	NA	NA	NA	NA	NA	NA	-20.58	NA	NA
MW-18 ⁶	50.29	NA	NA	NA	NA	NA	NA	-20.88	NA	NA
MW-19 ⁶	46.55	NA	NA	NA	NA	NA	NA	-20.13	NA	NA

Notes:

1. Reference point is north side, top of well casing.
2. Reference point elevation measured by Hargis + Associates.
3. Data taken from Woodward-Clyde Consultants Phase II Report, May 1988.
4. Data taken from Woodward-Clyde Consultants Phase III Report, May 1990.
5. NA - Not Available
6. Installed by Hargis + Associates, Inc. for Montrose Chemical Corporation

FIGURES



Kennedy/Jenks Consultants

Douglas Aircraft Company
C6 Facility

Site Vicinity Map



0 1,000 2,000 FEET

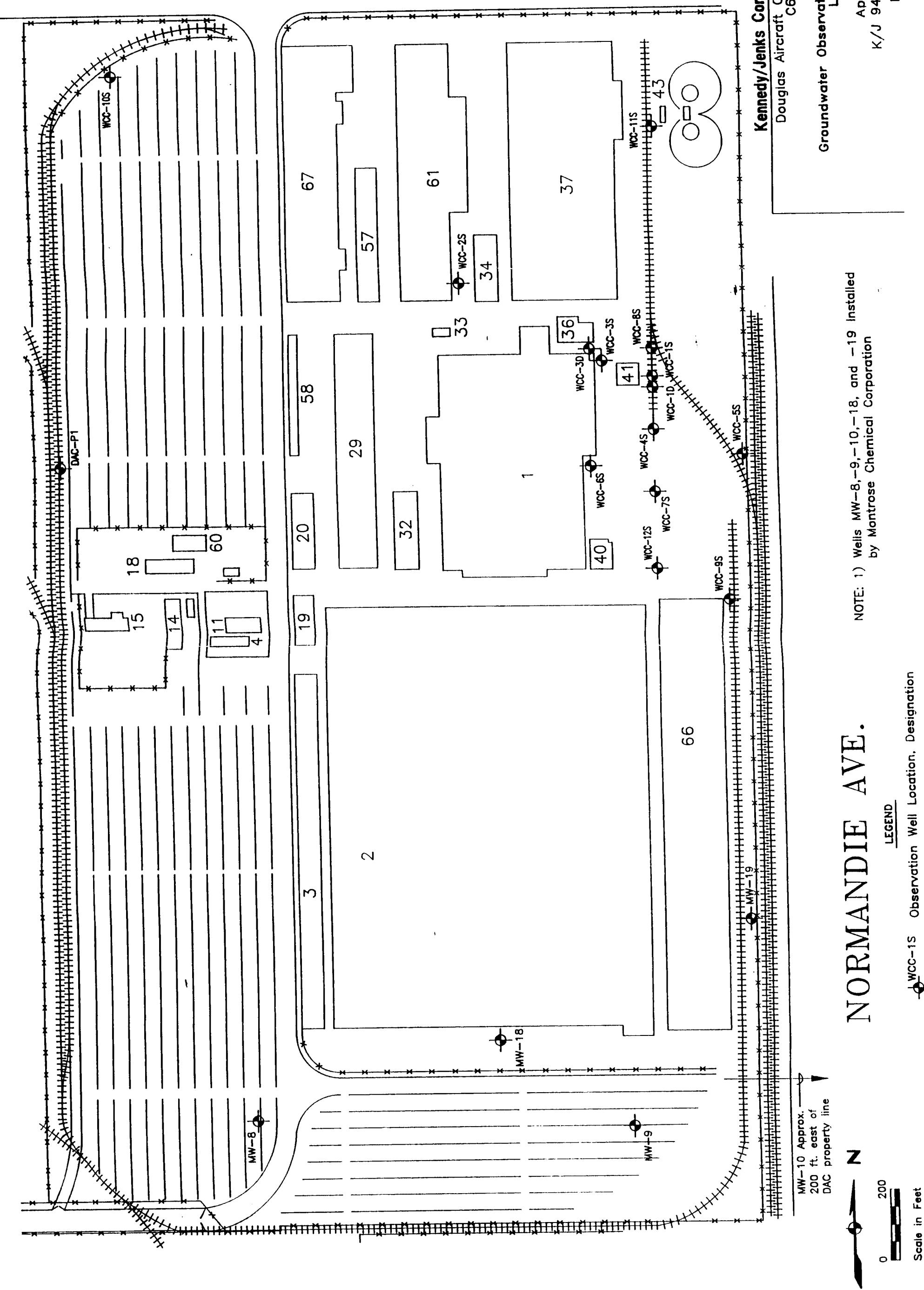
Base Map: U.S.G.S. 7.5 Minute Topographic Map,
Torrance, California Quadrangle, 1981.

April 1996
K/J 944016.01

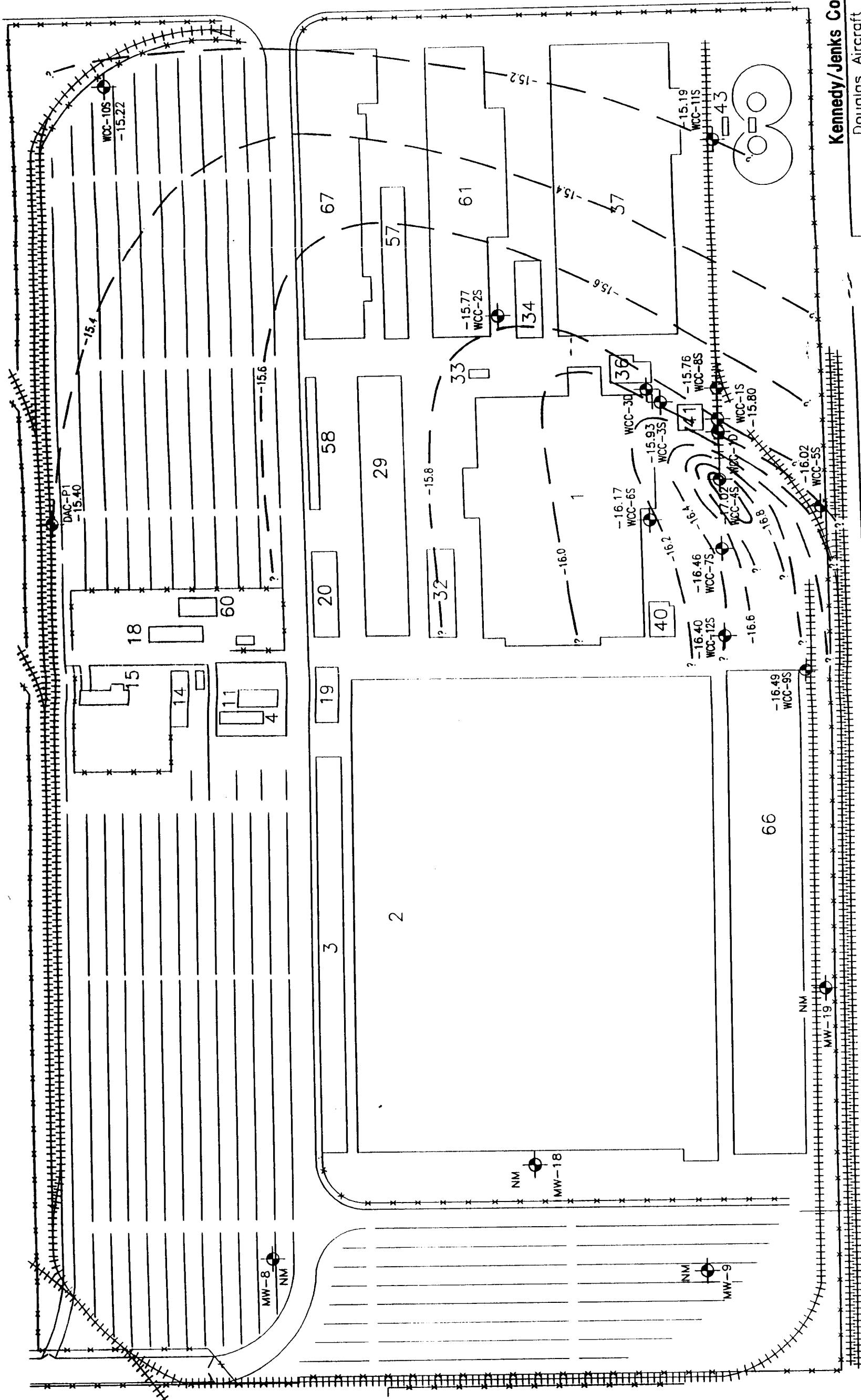
Figure 1

BOE-C6-0017389

190 TH. ST.



190 TH. ST.

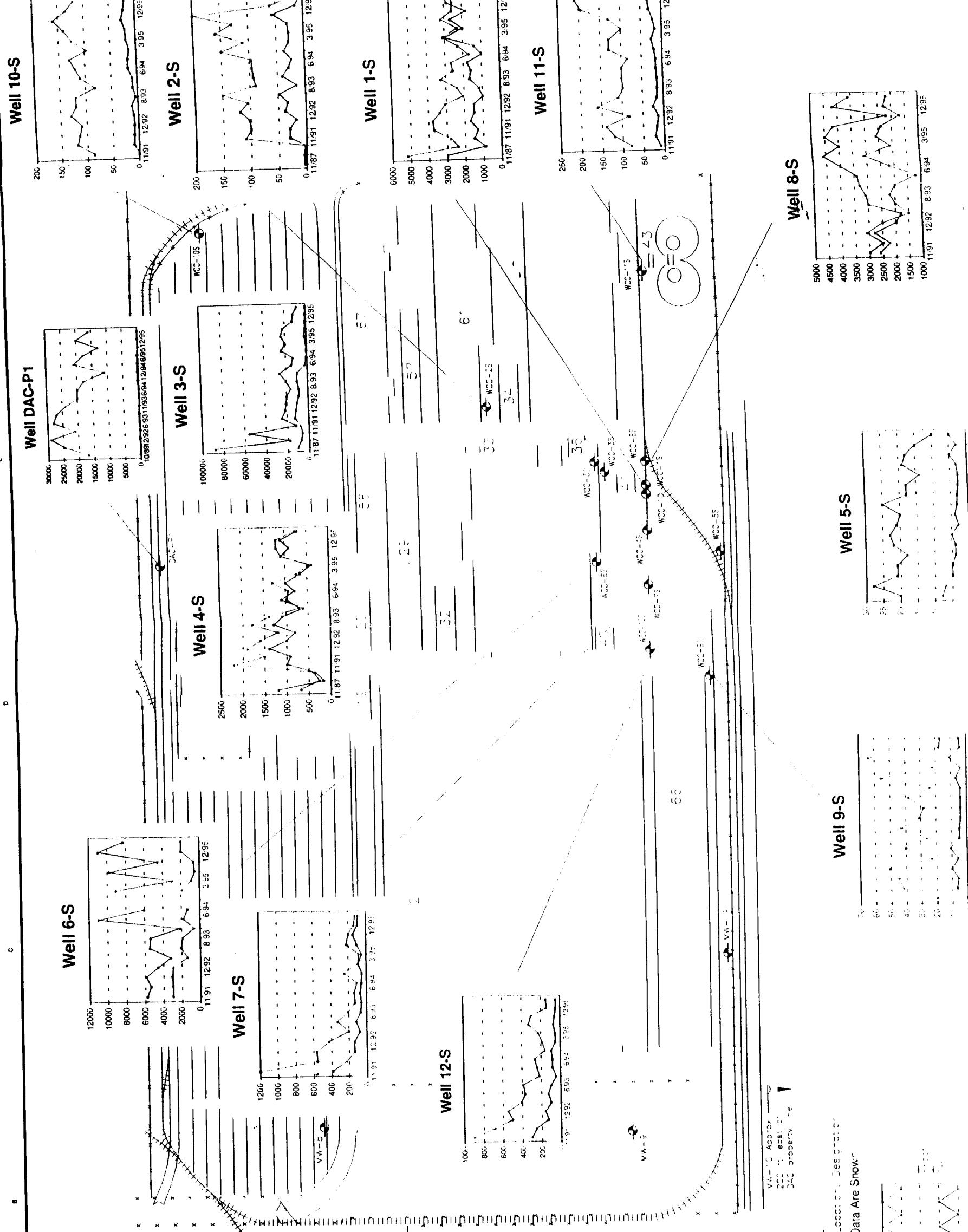


November 1991 to March 1996

PROFILE S

CHEMICAL CONCENTRATION

Douglass Artificial Compaction
C-6 Locality
Tortorella, Cellotrolite
Kennedy/Jenkins Consultants



LEGEND

WCC = C-Accrual Section
2C = C-2 Accrual Section
1C = C-1 Accrual Section
1B = C-1B Accrual Section
1A = C-1A Accrual Section
2B = C-2B Accrual Section
2A = C-2A Accrual Section
3B = C-3B Accrual Section
3A = C-3A Accrual Section
3C = C-3C Accrual Section
Only Shallow Well Data Are Shown

APPENDIX A
LABORATORY DATA SHEETS



Since 1878

Curtis & Tompkins, Ltd. General Analytical Laboratories

2495 Da Vinci, Irvine CA 92714

Phone 714-252-9700

Fax 714-252-9701

LABORATORY REPORT

Laboratory Number: 213841

Page 1 of 13

Date Received: 03/01/96

Date Reported: 03/07/96

Issued To: KENNEDY/JENKS
2151 MICHELSON DR.
SUITE 100
IRVINE, CA 92715
ATTN: SARAH BARTLING

Project I.D.: 944016.01

Location: DAC

Report On: SIX LIQUID SAMPLES ANALYZED AS SPECIFIED ON ATTACHED CHAIN OF CUSTODY

This report certifies that the samples were received in good condition (i.e. intact, chilled, and/or preserved appropriately) and that strict chain of custody procedures were adhered to at all times. It further certifies that the methods of analysis used are in fact those listed within this report and that Curtis & Tompkins, Ltd. has current certification for all work performed in the laboratory. Exceptions to this statement are specifically noted in the analytical report or on the attached chain of custody.

Reviewed By:

Roger Colvin

Jean Marie

Berkeley

Irvine

BOE-C6-0017395



Since 1878

Curtis & Tompkins, Ltd. General Analytical Laboratories

2495 Da Vinci, Irvine CA 92714

Phone 714-252-9700

Fax 714-252-9701

LABORATORY REPORT

Laboratory Number: 213838

Page 1 of 19

Date Received: 03/01/96

Date Reported: 03/12/96

Issued To: KENNEDY/JENKS
2151 MICHELSON DR.
SUITE 100
IRVINE, CA 92715
ATTN: SARAH BARTLING

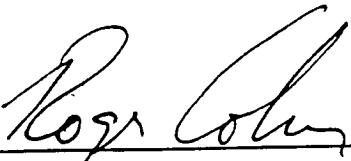
Project I.D.: 944016.01

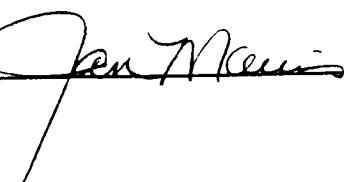
Location: DAC

Report On: NINE LIQUID SAMPLES ANALYZED AS SPECIFIED ON ATTACHED CHAIN OF CUSTODY

This report certifies that the samples were received in good condition (i.e. intact, chilled, and/or preserved appropriately) and that strict chain of custody procedures were adhered to at all times. It further certifies that the methods of analysis used are in fact those listed within this report and that Curtis & Tompkins, Ltd. has current certification for all work performed in the laboratory. Exceptions to this statement are specifically noted in the analytical report or on the attached chain of custody.

Reviewed By:


Roger Cohen


Jen Meiss

Berkeley

Irvine

BOE-C6-0017396

Since 1878



Curtis & Tompkins, Ltd. General Analytical Laboratories

2495 Da Vinci, Irvine CA 92714

Phone 714-252-9700

Fax 714-252-9701

ABORATORY REPORT

Laboratory Number: 213865

Page 1 of 19

Date Received: 03/06/96

Date Reported: 03/12/96

Issued To: KENNEDY/JENKS
2151 MICHELSON DR.
SUITE 100
IRVINE, CA 92715
ATTN: SARAH BARTLING

Project I.D.: 944016.01

Location: DAC

Report On: NINE LIQUID SAMPLES ANALYZED AS SPECIFIED ON ATTACHED CHAIN OF CUSTODY

This report certifies that the samples were received in good condition (i.e. intact, chilled, and/or preserved appropriately) and that strict chain of custody procedures were adhered to at all times. It further certifies that the methods of analysis used are in fact those listed within this report and that Curtis & Tompkins, Ltd. has current certification for all work performed in the laboratory. Exceptions to this statement are specifically noted in the analytical report or on the attached chain of custody.

Reviewed By:

Roger Colvin

Jan Main

Berkeley

Irvine



ABBREVIATIONS

BS/BSD - Blank Spike / Blank Spike Duplicate

BTEX - Benzene, Toluene, Ethyl Benzene, and Total Xylenes.

CCR - California Code of Regulations.

DHS - California Department of Health Services.

EPA - United States Environmental Protection Agency.

LCS - Laboratory Control Spike

LUFT - Leaking Underground Fuel Tank.

MDL - Method Detection Limit

NA - Not Applicable.

NC - Not Calculable

ND - Not Detected at or above the defined detection limit.

PQL - Practical Quantitation Limit

RPD - Relative percent difference.

STLC - Soluble Threshold Limit Concentration.

Surr. - Surrogates.

TCLP - Toxicity Characteristic Leaching Procedure.

TEH - Total Extractable Petroleum Hydrocarbons.

Title 26 - Title 26 of the California Code of Regulations (CCR).

TR~ - Trace, estimated value .

TTLC - Total Threshold Limit Concentration.

TVH - Total Volatile Hydrocarbons.

WET - Waste Extraction Test.

UNITS

cm³ - Cubic centimeter

1umhos/cm - uS/cm - Micro Siemens/centimeter

Kg - kilogram.

ppb - Parts per billion.

L - Liter.

ppm - Parts per million.

mg - Milligrams.

ug - Micrograms.

M³ - Cubic meter.

ppbv - Parts per billion per unit volume



OLATILE ORGANICS

ent I.D.: WCC1S-14
oratory I.D.: 213865-002
ent: KENNEDY/JENKS

Matrix: Liquid
Method: EPA 8260
Extraction: EPA 5030 Purge & Trap

Page
4 of 19

Compound	Result (ug/L)	Detection Limit	Analytical Notes	Method Blank	Detection Limit	Analytical Notes
etone	ND	40	a	ND	10	a - Raised detection limit due to sample interference.
nzene	ND	20	a	ND	5	b - Result from a 1:4 dilution.
omobenzene	ND	20	a	ND	5	c - Result from a 1:20 dilution.
omochloromethane	ND	20	a	ND	5	
omodichloromethane	ND	20	a	ND	5	
omoform	ND	20	a	ND	5	
omomethane	ND	40	a	ND	10	
3utanolone	ND	40	a	ND	10	
3utylbenzene	ND	20	a	ND	5	
c-Butylbenzene	ND	20	a	ND	5	
t-Butylbenzene	ND	20	a	ND	5	
arbon disulfide	ND	20	a	ND	5	
arbon tetrachloride	ND	20	a	ND	5	
lorobenzene	ND	20	a	ND	5	
loroethane	ND	40	a	ND	10	
Chloroethyl vinyl ether	ND	40	a	ND	10	
loroform	ND	20	a	ND	5	
loromethane	ND	40	a	ND	10	
Chlorotoluene	ND	20	a	ND	5	
Chlorotoluene	ND	20	a	ND	5	
bromochloromethane	ND	20	a	ND	5	
2-Dibromo-3-chloropropane	ND	20	a	ND	5	
2-Dibromoethane	ND	20	a	ND	5	
bromomethane	ND	20	a	ND	5	
2-Dichlorobenzene	ND	20	a	ND	5	
3-Dichlorobenzene	ND	20	a	ND	5	
4-Dichlorobenzene	ND	20	a	ND	5	
chlorodifluoromethane	ND	40	a	ND	10	
1-Dichloroethane	27	20	a,b	ND	5	
2-Dichloroethane	ND	20	a	ND	5	
1-Dichloroethene	3000	100	a,c	ND	5	
s-1,2-Dichloroethene	35	20	a,b	ND	5	
ans-1,2-Dichloroethene	45	20	a,b	ND	5	
2-Dichloropropene	ND	20	a	ND	5	
3-Dichloropropene	ND	20	a	ND	5	
2-Dichloropropane	ND	20	a	ND	5	
1-Dichloropropene	ND	20	a	ND	5	
s-1,3-Dichloropropene	ND	20	a	ND	5	
ans-1,3-Dichloropropene	ND	20	a	ND	5	
thylbenzene	ND	20	a	ND	5	
reon 113	ND	20	a	ND	5	
exachlorobutadiene	ND	20	a	ND	5	
-Hexanone	ND	40	a	ND	10	
-Propylbenzene	ND	20	a	ND	5	
-Isopropyltoluene	ND	20	a	ND	5	Date Sampled: 3/04/96 N/A
ethylene chloride	ND	20	a	ND	5	Date Analyzed: 3/07/96 3/07/96
-Methyl-2-pentanone	ND	40	a	ND	10	
aphthalene	ND	20	a	ND	5	
-Propylbenzene	ND	20	a	ND	5	

(continued on next page)

VOLATILE ORGANICS



Client I.D.: WCC1S-14
 Laboratory I.D.: 213865-002
 Client: KENNEDY/JENKS

Matrix: Liquid
 Method: EPA 8260
 Extraction: EPA 5030 Purge & Trap

Page
 5 of 19

(continued from previous page)

Compound	Result (ug/L)	Detection Limit	Analytical Notes	Method Blank	Detection Limit	Analytical Notes
Styrene	ND	20	a	ND	5	a - Raised detection limit due to sample interference.
,1,1,2-Tetrachloroethane	ND	20	a	ND	5	
,1,2,2-Tetrachloroethane	ND	20	a	ND	5	b - Result from a 1:4 dilution.
Tetrachloroethylene	ND	20	a	ND	5	
Toluene	ND	20	a	ND	5	c - Result from a 1:20 dilution.
,2,3-Trichlorobenzene	ND	20	a	ND	5	
,2,4-Trichlorobenzene	ND	20	a	ND	5	
,1,1-Trichloroethane	24	20	a,b	ND	5	
,1,2-Trichloroethane	ND	20	a	ND	5	
Trichloroethylene	2700	100	a,c	ND	5	
Trichlorofluoromethane	ND	20	a	ND	5	
,2,3-Trichloropropane	ND	20	a	ND	5	
,2,4-Trimethylbenzene	ND	20	a	ND	5	
,3,5-Trimethylbenzene	ND	20	a	ND	5	
Methyl acetate	ND	40	a	ND	10	
Methyl chloride	ND	40	a	ND	10	
,1,p-Xylenes	ND	20	a	ND	5	
-Xylene	ND	20	a	ND	5	

Quality Control Data Summary

Surrogate Recovery Data				Laboratory Control Sample, Matrix Spike/Matrix Spike Duplicate Data									
Compound	Spike Amount (ug/L)	Percent Recovery	QC Limits	Batch I.D.: 10872DC7		Sample I.D.: 213865-003							
				Compounds	Spike Amt.	LCS %Rec.	QC Limits	Spike %Rec.	Spk Dup %Rec.	QC Limits	RPD	QC Limits	
Toluene-d8	50	101	88-110	1,1-Dichloroethene	25	91	80-120	88	90	61-145	2	14	
Bromofluorobenzene	50	91	86-115	Benzene	25	105	80-120	104	105	76-127	1	11	
Dibromofluoromethane	50	108	76-114	Trichloroethylene	25	110	80-120	104	100	71-120	4	14	
				Toluene	25	109	80-120	108	105	76-125	3	13	
				Chlorobenzene	25	106	80-120	110	111	75-130	1	13	



'OLATILE ORGANICS

Client I.D.: WCC2S-14
Laboratory I.D.: 213838-002
Client: KENNEDY/JENKS

Matrix: Liquid
Method: EPA 8260
Extraction: EPA 5030 Purge & Trap

Page
4 of 19

Compound	Result (ug/L)	Detection Limit	Analytical Notes	Method Blank	Detection Limit	Analytical Notes
cetone	ND	10		ND	10	
benzene	ND	5		ND	5	
chlorobenzene	ND	5		ND	5	
chlorochloromethane	ND	5		ND	5	
chlorodichloromethane	ND	5		ND	5	
chloroform	ND	5		ND	5	
chloromethane	ND	10		ND	10	
Butanone	ND	10		ND	10	
-Butylbenzene	ND	5		ND	5	
sec-Butylbenzene	ND	5		ND	5	
tert-Butylbenzene	ND	5		ND	5	
carbon disulfide	ND	5		ND	5	
carbon tetrachloride	ND	5		ND	5	
chlorobenzene	ND	5		ND	5	
chloroethane	ND	10		ND	10	
-Chloroethyl vinyl ether	ND	10		ND	10	
chloroform	ND	5		ND	5	
chloromethane	ND	10		ND	10	
-Chlorotoluene	ND	5		ND	5	
-Chlorotoluene	ND	5		ND	5	
ibromochloromethane	ND	5		ND	5	
2-Dibromo-3-chloropropane	ND	5		ND	5	
2-Dibromoethane	ND	5		ND	5	
ibromomethane	ND	5		ND	5	
.2-Dichlorobenzene	ND	5		ND	5	
3-Dichlorobenzene	ND	5		ND	5	
4-Dichlorobenzene	ND	5		ND	5	
chlorodifluoromethane	ND	10		ND	10	
1-Dichloroethane	ND	5		ND	5	
2-Dichloroethane	ND	5		ND	5	
1-Dichloroethene	ND	5		ND	5	
is-1,2-Dichloroethene	ND	5		ND	5	
ans-1,2-Dichloroethene	ND	5		ND	5	
2-Dichloropropane	ND	5		ND	5	
3-Dichloropropane	ND	5		ND	5	
2-Dichloropropane	ND	5		ND	5	
1-Dichloropropene	ND	5		ND	5	
is-1,3-Dichloropropene	ND	5		ND	5	
trans-1,3-Dichloropropene	ND	5		ND	5	
Ethylbenzene	ND	5		ND	5	
Freon 113	ND	5		ND	5	
hexachlorobutadiene	ND	5		ND	5	
-Hexanone	ND	10		ND	10	Sample
isopropylbenzene	ND	5		ND	5	Method Blank
1-Isopropyltoluene	ND	5		ND	5	Date Sampled: 3/01/96
ethylene chloride	ND	5		ND	5	N/A
1-Methyl-2-pentanone	ND	10		ND	10	Date Analyzed: 3/06/96
naphthalene	ND	5		ND	5	3/06/96
1-Propylbenzene	ND	5		ND	5	

(continued on next page)

VOLATILE ORGANICS



Client I.D.: WCC2S-14

Matrix: Liquid

Page

Laboratory I.D.: 213838-002

Method: EPA 8260

5 of 19

Client: KENNEDY/JENKS

Extraction: EPA 5030 Purge & Trap

(continued from previous page)

Compound	Result (ug/L)	Detection Limit	Analytical Notes	Method Blank	Detection Limit	Analytical Notes
Styrene	ND	5		ND	5	a - MS recovery out of control due to confirmed matrix effect. LCS, MSD and RPD are within acceptance limits.
,1,1,2-Tetrachloroethane	ND	5		ND	5	
,1,2,2-Tetrachloroethane	ND	5		ND	5	
Tetrachloroethylene	ND	5		ND	5	
Toluene	ND	5		ND	5	
,2,3-Trichlorobenzene	ND	5		ND	5	
,2,4-Trichlorobenzene	ND	5		ND	5	
,1,1-Trichloroethane	ND	5		ND	5	
,1,2-Trichloroethane	ND	5		ND	5	
Trichloroethene	21	5		ND	5	
Trichlorofluoromethane	ND	5		ND	5	
,2,3-Trichloropropane	ND	5		ND	5	
,2,4-Trimethylbenzene	ND	5		ND	5	
,3,5-Trimethylbenzene	ND	5		ND	5	
Vinyl acetate	ND	10		ND	10	
Vinyl chloride	ND	10		ND	10	
n,p-Xylenes	ND	5		ND	5	
m-Xylene	ND	5		ND	5	

Quality Control Data Summary

Surrogate Recovery Data				Laboratory Control Sample, Matrix Spike/Matrix Spike Duplicate Data								
Compound	Spike Amount (ug/L)	Percent Recovery	QC Limits	Batch I.D.: 10814DC6		Sample I.D.: 213813-004						
	Compounds	Spike Amt. (ug/L)	LCS %Rec. Limits	QC Limits	Spike %Rec. Limits	Spk Dup %Rec. Limits	QC Limits	RPD	QC Limits			
Toluene-d8	50	99	88-110	1,1-Dichloroethene	25	89	80-120	93	88	61-145	6	14
Bromofluorobenzene	50	92	86-115	Benzene	25	105	80-120	113	107	76-127	5	11
Dibromofluoromethane	50	103	76-114	Trichloroethylene	25	112	80-120	a	115	71-120	6	14
				Toluene	25	110	80-120	111	103	76-125	7	13
				Chlorobenzene	25	111	80-120	116	111	75-130	4	13

VOLATILE ORGANICS



Client I.D.: WCC3S-14
 Laboratory I.D.: 213865-004
 Client: KENNEDY/JENKS

Matrix: Liquid
 Method: EPA 8260
 Extraction: EPA 5030 Purge & Trap

Page
 8 of 19

Compound	Result (ug/L)	Detection Limit	Analytical Notes	Method Blank	Detection Limit	Analytical Notes
Acetone	ND	100	a	ND	10	a - Raised detection limit due to sample interference.
Benzene	100	50	a,b	ND	5	b - Result from a 1:10 dilution.
Bromobenzene	ND	50	a	ND	5	
Bromochloromethane	ND	50	a	ND	5	
Bromodichloromethane	ND	50	a	ND	5	c - Result from a 1:100 dilution.
Bromoform	ND	50	a	ND	5	
Bromomethane	ND	100	a	ND	10	
-Butanone	ND	100	a	ND	10	
-Butylbenzene	ND	50	a	ND	5	
-sec-Butylbenzene	ND	50	a	ND	5	
-tert-Butylbenzene	ND	50	a	ND	5	
Carbon disulfide	ND	50	a	ND	5	
Carbon tetrachloride	ND	50	a	ND	5	
Chlorobenzene	ND	50	a	ND	5	
Chloroethane	ND	100	a	ND	10	
-Chloroethyl vinyl ether	ND	100	a	ND	10	
Chloroform	ND	50	a	ND	5	
Chloromethane	ND	100	a	ND	10	
-Chlorotoluene	ND	50	a	ND	5	
-Chlorotoluene	ND	50	a	ND	5	
Dibromochloromethane	ND	50	a	ND	5	
,2-Dibromo-3-chloropropane	ND	50	a	ND	5	
,2-Dibromoethane	ND	50	a	ND	5	
Dibromomethane	ND	50	a	ND	5	
,2-Dichlorobenzene	ND	50	a	ND	5	
,3-Dichlorobenzene	ND	50	a	ND	5	
,4-Dichlorobenzene	ND	50	a	ND	5	
Dichlorodifluoromethane	ND	100	a	ND	10	
,1-Dichloroethane	230	50	a,b	ND	5	
,2-Dichloroethane	ND	50	a	ND	5	
,1-Dichloroethene	8400	500	a,c	ND	5	
is-1,2-Dichloroethene	3200	500	a,c	ND	5	
trans-1,2-Dichloroethene	280	50	a,b	ND	5	
,2-Dichloropropane	ND	50	a	ND	5	
,3-Dichloropropane	ND	50	a	ND	5	
,2-Dichloropropene	ND	50	a	ND	5	
,1-Dichloropropene	ND	50	a	ND	5	
is-1,3-Dichloropropene	ND	50	a	ND	5	
trans-1,3-Dichloropropene	ND	50	a	ND	5	
Ethylbenzene	ND	50	a	ND	5	
Freon 113	ND	50	a	ND	5	
Hexachlorobutadiene	ND	50	a	ND	5	
-Hexanone	ND	100	a	ND	10	
Isopropylbenzene	ND	50	a	ND	5	
-Isopropyltoluene	ND	50	a	ND	5	
Methylene chloride	ND	50	a	ND	5	
-Methyl-2-pentanone	200	100	a,b	ND	10	
Naphthalene	ND	50	a	ND	5	
-Propylbenzene	ND	50	a	ND	5	

(continued on next page)

Sample	Method Blank	
Date Sampled:	3/04/96	N/A
Date Analyzed:	3/07/96	3/07/96

VOLATILE ORGANICS



Client I.D.: WCC3S-14
 Laboratory I.D.: 213865-004
 Client: KENNEDY/JENKS

Matrix: Liquid
 Method: EPA 8260
 Extraction: EPA 5030 Purge & Trap

Page
 9 of 19

(continued from previous page)

Compound	Result (ug/L)	Detection Limit	Analytical Notes	Method Blank	Detection Limit	Analytical Notes
Styrene	ND	50	a	ND	5	a - Raised detection limit due to sample interference.
1,1,1,2-Tetrachloroethane	ND	50	a	ND	5	
1,1,2,2-Tetrachloroethane	ND	50	a	ND	5	b - Result from a 1:10 dilution.
Tetrachloroethene	ND	50	a	ND	5	
Toluene	15000	500	a,c	ND	5	c - Result from a 1:100 dilution.
1,2,3-Trichlorobenzene	ND	50	a	ND	5	
1,2,4-Trichlorobenzene	ND	50	a	ND	5	
1,1,1-Trichloroethane	1900	500	a,c	ND	5	
1,1,2-Trichloroethane	ND	50	a	ND	5	
Trichloroethene	480	50	a,b	ND	5	
Trichlorofluoromethane	ND	50	a	ND	5	
1,2,3-Trichloropropane	ND	50	a	ND	5	
1,2,4-Trimethylbenzene	ND	50	a	ND	5	
1,3,5-Trimethylbenzene	ND	50	a	ND	5	
Vinyl acetate	ND	100	a	ND	10	
Vinyl chloride	ND	100	a	ND	10	
m,p-Xylenes	ND	50	a	ND	5	
o-Xylene	ND	50	a	ND	5	

Quality Control Data Summary

Surrogate Recovery Data				Laboratory Control Sample, Matrix Spike/Matrix Spike Duplicate Data									
Compound	Spike Amount (ug/L)	Percent Recovery	QC Limits	Batch I.D.: 10872DC7		Sample I.D.: 213865-003							
				Compounds	Spike Amt.	LCS %Rec.	QC Limits	Spike %Rec.	Spk Dup %Rec.	QC Limits	RPD	QC Limits	
Toluene-d8	50	101	88-110	1,1-Dichloroethene	25	91	80-120	88	90	61-145	2	14	
Bromofluorobenzene	50	93	86-115	Benzene	25	105	80-120	104	105	76-127	1	11	
Dibromofluoromethane	50	111	76-114	Trichloroethene	25	110	80-120	104	100	71-120	4	14	
				Toluene	25	109	80-120	108	105	76-125	3	13	
				Chlorobenzene	25	106	80-120	110	111	75-130	1	13	

VOLATILE ORGANICS



Client I.D.: WCC4S-14
Laboratory I.D.: 213865-001
Client: KENNEDY/JENKS

Matrix: Liquid
Method: EPA 8260
Extraction: EPA 5030 Purge & Trap

Page
2 of 19

Compound	Result (ug/L)	Detection Limit	Analytical Notes	Method Blank	Detection Limit	Analytical Notes
Acetone	ND	10		ND	10	a - Raised detection limit due to sample interference.
Benzene	ND	5		ND	5	b - Result from a 1:10 dilution.
Bromobenzene	ND	5		ND	5	
Bromochloromethane	ND	5		ND	5	
Bromodichloromethane	ND	5		ND	5	
Bromoform	ND	5		ND	5	
Bromomethane	ND	10		ND	10	
-Butanone	ND	10		ND	10	
-Butylbenzene	ND	5		ND	5	
ec-Butylbenzene	ND	5		ND	5	
ert-Butylbenzene	ND	5		ND	5	
Carbon disulfide	ND	5		ND	5	
Carbon tetrachloride	ND	5		ND	5	
Chlorobenzene	ND	5		ND	5	
Chloroethane	ND	10		ND	10	
-Chloroethyl vinyl ether	ND	10		ND	10	
Chloroform	ND	5		ND	5	
Chloromethane	ND	10		ND	10	
-Chlorotoluene	ND	5		ND	5	
-Chlorotoluene	ND	5		ND	5	
Bibromochloromethane	ND	5		ND	5	
,2-Dibromo-3-chloropropane	ND	5		ND	5	
,2-Dibromoethane	ND	5		ND	5	
Bibromomethane	ND	5		ND	5	
,2-Dichlorobenzene	ND	5		ND	5	
,3-Dichlorobenzene	ND	5		ND	5	
,4-Dichlorobenzene	ND	5		ND	5	
Chlorodifluoromethane	ND	10		ND	10	
,1-Dichloroethane	ND	5		ND	5	
,2-Dichloroethane	ND	5		ND	5	
,1-Dichloroethene	710	50	a,b	ND	5	
rs-1,2-Dichloroethene	6	5		ND	5	
ans-1,2-Dichloroethene	6	5		ND	5	
,2-Dichloropropane	ND	5		ND	5	
3-Dichloropropane	ND	5		ND	5	
,2-Dichloropropane	ND	5		ND	5	
1-Dichloropropene	ND	5		ND	5	
s-1,3-Dichloropropene	ND	5		ND	5	
ans-1,3-Dichloropropene	ND	5		ND	5	
Phylbenzene	ND	5		ND	5	
neon 113	ND	5		ND	5	
exachlorobutadiene	ND	5		ND	5	
-Hexanone	ND	10		ND	10	Sample
opropylbenzene	ND	5		ND	5	Method Blank
-Isopropyltoluene	ND	5		ND	5	Date Sampled: 3/04/96 N/A
ethylene chloride	ND	5		ND	5	Date Analyzed: 3/07/96 3/07/96
-Methyl-2-pentanone	ND	10		ND	10	
aphthalene	ND	5		ND	5	
-Propylbenzene	ND	5		ND	5	

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VOLATILE ORGANICS



Client I.D.: WCC4S-14
 Laboratory I.D.: 213865-001
 Client: KENNEDY/JENKS

Matrix: Liquid
 Method: EPA 8260
 Extraction: EPA 5030 Purge & Trap

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Compound	Result (ug/L)	Detection Limit	Analytical Notes	Method Blank	Detection Limit	Analytical Notes
Styrene	ND	5		ND	5	a - Raised detection limit due to sample interference.
1,1,1,2-Tetrachloroethane	ND	5		ND	5	
1,1,2,2-Tetrachloroethane	ND	5		ND	5	b - Result from a 1:10 dilution.
Tetrachloroethylene	ND	5		ND	5	
Toluene	ND	5		ND	5	
1,2,3-Trichlorobenzene	ND	5		ND	5	
1,2,4-Trichlorobenzene	ND	5		ND	5	
1,1,1-Trichloroethane	ND	5		ND	5	
1,1,2-Trichloroethane	ND	5		ND	5	
Trichloroethylene	770	50	a,b	ND	5	
Trichlorofluoromethane	ND	5		ND	5	
1,2,3-Trichloropropane	ND	5		ND	5	
1,2,4-Trimethylbenzene	ND	5		ND	5	
1,3,5-Trimethylbenzene	ND	5		ND	5	
Vinyl acetate	ND	10		ND	10	
Vinyl chloride	ND	10		ND	10	
m,p-Xylenes	ND	5		ND	5	
-Xylene	ND	5		ND	5	

Quality Control Data Summary

Surrogate Recovery Data				Laboratory Control Sample, Matrix Spike/Matrix Spike Duplicate Data									
Compound	Spike Amount (ug/L)	Percent Recovery	QC Limits	Batch I.D.: 10872DC7		Sample I.D.: 213865-003							
				Compounds	Spike Amt.	LCS %Rec.	QC Limits	Spike %Rec.	Spk Dup %Rec.	QC Limits	RPD	QC Limits	
Toluene-d8	50	100	88-110	1,1-Dichloroethene	25	91	80-120	88	90	61-145	2	14	
Bromofluorobenzene	50	91	86-115	Benzene	25	105	80-120	104	105	76-127	1	11	
Dibromofluoromethane	50	105	76-114	Trichloroethylene	25	110	80-120	104	100	71-120	4	14	
				Toluene	25	109	80-120	108	105	76-125	3	13	
				Chlorobenzene	25	106	80-120	110	111	75-130	1	13	

VOLATILE ORGANICS



Client I.D.: WCC5S-14
 Laboratory I.D.: 213841-001
 Client: KENNEDY/JENKS

Matrix: Liquid
 Method: EPA 8260
 Extraction: EPA 5030 Purge & Trap

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Compound	Result (ug/L)	Detection Limit	Analytical Notes	Method Blank	Detection Limit	Analytical Notes
Acetone	ND	10		ND	10	
Benzene	ND	5		ND	5	
Bromobenzene	ND	5		ND	5	
Bromochloromethane	ND	5		ND	5	
Bromodichloromethane	ND	5		ND	5	
Bromoform	ND	5		ND	5	
Bromomethane	ND	10		ND	10	
2-Butanone	ND	10		ND	10	
n-Butylbenzene	ND	5		ND	5	
sec-Butylbenzene	ND	5		ND	5	
tert-Butylbenzene	ND	5		ND	5	
Carbon disulfide	ND	5		ND	5	
Carbon tetrachloride	ND	5		ND	5	
Chlorobenzene	ND	5		ND	5	
Chloroethane	ND	10		ND	10	
2-Chloroethyl vinyl ether	ND	10		ND	10	
Chloroform	ND	5		ND	5	
Chloromethane	ND	10		ND	10	
2-Chlorotoluene	ND	5		ND	5	
4-Chlorotoluene	ND	5		ND	5	
Dibromochloromethane	ND	5		ND	5	
1,2-Dibromo-3-chloropropane	ND	5		ND	5	
1,2-Dibromoethane	ND	5		ND	5	
Dibromomethane	ND	5		ND	5	
1,2-Dichlorobenzene	ND	5		ND	5	
1,3-Dichlorobenzene	ND	5		ND	5	
1,4-Dichlorobenzene	ND	5		ND	5	
Dichlorodifluoromethane	ND	10		ND	10	
1,1-Dichloroethane	ND	5		ND	5	
1,2-Dichloroethane	ND	5		ND	5	
1,1-Dichloroethene	10	5		ND	5	
cis-1,2-Dichloroethene	ND	5		ND	5	
trans-1,2-Dichloroethene	ND	5		ND	5	
1,2-Dichloropropane	ND	5		ND	5	
1,3-Dichloropropane	ND	5		ND	5	
2,2-Dichloropropane	ND	5		ND	5	
1,1-Dichloropropene	ND	5		ND	5	
cis-1,3-Dichloropropene	ND	5		ND	5	
trans-1,3-Dichloropropene	ND	5		ND	5	
Ethylbenzene	ND	5		ND	5	
Freon 113	ND	5		ND	5	
Hexachlorobutadiene	ND	5		ND	5	
2-Hexanone	ND	10		ND	10	
Isopropylbenzene	ND	5		ND	5	
p-Isopropyltoluene	ND	5		ND	5	
Methylene chloride	ND	5		ND	5	
4-Methyl-2-pentanone	ND	10		ND	10	
Naphthalene	ND	5		ND	5	
n-Propylbenzene	ND	5		ND	5	

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Sample	Method Blank	
Date Sampled:	2/29/96	N/A
Date Analyzed:	3/05/96	3/05/96

VOLATILE ORGANICS



Client I.D.: WCC5S-14
 Laboratory I.D.: 213841-001
 Client: KENNEDY/JENKS

Matrix: Liquid
 Method: EPA 8260
 Extraction: EPA 5030 Purge & Trap

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Compound	Result (ug/L)	Detection Limit	Analytical Notes	Method Blank	Detection Limit	Analytical Notes
Styrene	ND	5		ND	5	
1,1,1,2-Tetrachloroethane	ND	5		ND	5	
1,1,2,2-Tetrachloroethane	ND	5		ND	5	
Tetrachloroethene	ND	5		ND	5	
Toluene	ND	5		ND	5	
1,2,3-Trichlorobenzene	ND	5		ND	5	
1,2,4-Trichlorobenzene	ND	5		ND	5	
1,1,1-Trichloroethane	ND	5		ND	5	
1,1,2-Trichloroethane	ND	5		ND	5	
Trichloroethene	ND	5		ND	5	
Trichlorofluoromethane	ND	5		ND	5	
1,2,3-Trichloropropane	ND	5		ND	5	
1,2,4-Trimethylbenzene	ND	5		ND	5	
1,3,5-Trimethylbenzene	ND	5		ND	5	
Vinyl acetate	ND	10		ND	10	
Vinyl chloride	ND	10		ND	10	
m,p-Xylenes	ND	5		ND	5	
o-Xylene	ND	5		ND	5	

Quality Control Data Summary

Surrogate Recovery Data				Laboratory Control Sample, Matrix Spike/Matrix Spike Duplicate Data									
Compound	Spike Amount (ug/L)	Percent Recovery	QC Limits	Batch I.D.: 10813DC5		Sample I.D.: 213813-007							
	Compounds	Spike Amt. (ug/L)	LCS %Rec.	QC Limits	Spike %Rec.	Spk Dup %Rec.	QC Limits	RPD	QC Limits				
Toluene-d8	50	99	88-110	1,1-Dichloroethene	25	83	80-120	95	85	61-145	11	14	
Bromofluorobenzene	50	92	86-115	Benzene	25	102	80-120	106	98	76-127	8	11	
Dibromofluoromethane	50	105	76-114	Trichloroethene	25	111	80-120	113	101	71-120	11	14	
				Toluene	25	102	80-120	114	104	76-125	9	13	
				Chlorobenzene	25	104	80-120	113	107	75-130	5	13	

VOLATILE ORGANICS



Client I.D.: WCC6S-14
 Laboratory I.D.: 213865-005
 Client: KENNEDY/JENKS

Matrix: Liquid
 Method: EPA 8260
 Extraction: EPA 5030 Purge & Trap

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Compound	Result (ug/L)	Detection Limit	Analytical Notes	Method Blank	Detection Limit	Analytical Notes
Acetone	ND	100	a	ND	10	a - Raised detection limit due to sample interference.
Benzene	56	50	a,b	ND	5	b - Result from a 1:10 dilution.
Bromobenzene	ND	50	a	ND	5	c - Result from a 1:100 dilution.
Bromoform	ND	50	a	ND	5	
Bromomethane	ND	100	a	ND	10	
2-Butanone	340	100	a,b	ND	10	
n-Butylbenzene	ND	50	a	ND	5	
sec-Butylbenzene	ND	50	a	ND	5	
tert-Butylbenzene	ND	50	a	ND	5	
Carbon disulfide	ND	50	a	ND	5	
Carbon tetrachloride	ND	50	a	ND	5	
Chlorobenzene	ND	50	a	ND	5	
Chloroethane	ND	100	a	ND	10	
2-Chloroethyl vinyl ether	ND	100	a	ND	10	
Chloroform	ND	50	a	ND	5	
Chloromethane	ND	100	a	ND	10	
2-Chlorotoluene	ND	50	a	ND	5	
4-Chlorotoluene	ND	50	a	ND	5	
Dibromochloromethane	ND	50	a	ND	5	
1,2-Dibromo-3-chloropropane	ND	50	a	ND	5	
1,2-Dibromoethane	ND	50	a	ND	5	
Dibromomethane	ND	50	a	ND	5	
1,2-Dichlorobenzene	ND	50	a	ND	5	
1,3-Dichlorobenzene	ND	50	a	ND	5	
1,4-Dichlorobenzene	ND	50	a	ND	5	
Dichlorodifluoromethane	ND	100	a	ND	10	
1,1-Dichloroethane	93	50	a,b	ND	5	
1,2-Dichloroethane	ND	50	a	ND	5	
1,1-Dichloroethene	8300	500	a,c	ND	5	
cis-1,2-Dichloroethene	2000	50	a,b	ND	5	
trans-1,2-Dichloroethene	140	50	a,b	ND	5	
1,2-Dichloropropane	ND	50	a	ND	5	
1,3-Dichloropropane	ND	50	a	ND	5	
2,2-Dichloropropane	ND	50	a	ND	5	
1,1-Dichloropropene	ND	50	a	ND	5	
cis-1,3-Dichloropropene	ND	50	a	ND	5	
trans-1,3-Dichloropropene	ND	50	a	ND	5	
Ethylbenzene	ND	50	a	ND	5	
Freon 113	ND	50	a	ND	5	
Hexachlorobutadiene	ND	50	a	ND	5	
2-Hexanone	ND	100	a	ND	10	Sample
Isopropylbenzene	ND	50	a	ND	5	Method Blank
p-Isopropyltoluene	ND	50	a	ND	5	Date Sampled: 3/04/96 N/A
Methylene chloride	ND	50	a	ND	5	Date Analyzed: 3/07/96 3/07/96
4-Methyl-2-pentanone	350	100	a,b	ND	10	
Naphthalene	ND	50	a	ND	5	
n-Propylbenzene	ND	50	a	ND	5	

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VOLATILE ORGANICS



Client I.D.: WCC6S-14
 Laboratory I.D.: 213865-005
 Client: KENNEDY/JENKS

Matrix: Liquid
 Method: EPA 8260
 Extraction: EPA 5030 Purge & Trap

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Compound	Result (ug/L)	Detection Limit	Analytical Notes	Method Blank	Detection Limit	Analytical Notes
Styrene	ND	50	a	ND	5	a - Raised detection limit due to sample interference.
1,1,1,2-Tetrachloroethane	ND	50	a	ND	5	
1,1,2,2-Tetrachloroethane	ND	50	a	ND	5	b - Result from a 1:10 dilution.
Tetrachloroethene	ND	50	a	ND	5	
Toluene	3900	500	a,c	ND	5	c - Result from a 1:100 dilution.
1,2,3-Trichlorobenzene	ND	50	a	ND	5	
1,2,4-Trichlorobenzene	ND	50	a	ND	5	
1,1,1-Trichloroethane	1600	50	a,b	ND	5	
1,1,2-Trichloroethane	61	50	a,b	ND	5	
Trichloroethene	2000	50	a,b	ND	5	
Trichlorofluoromethane	ND	50	a	ND	5	
1,2,3-Trichloropropane	ND	50	a	ND	5	
1,2,4-Trimethylbenzene	ND	50	a	ND	5	
1,3,5-Trimethylbenzene	ND	50	a	ND	5	
Vinyl acetate	ND	100	a	ND	10	
Vinyl chloride	ND	100	a	ND	10	
m,p-Xylenes	ND	50	a	ND	5	
o-Xylene	ND	50	a	ND	5	

Quality Control Data Summary

Surrogate Recovery Data				Laboratory Control Sample, Matrix Spike/Matrix Spike Duplicate Data									
Compound	Spike Amount (ug/L)	Percent Recovery	QC Limits	Batch I.D.: 10872DC7		Sample I.D.: 213865-003							
				Compounds	Spike Amt. (ug/L)	LCS %Rec.	QC Limits	Spike %Rec.	Spk Dup %Rec.	QC Limits	RPD	QC Limits	
Toluene-d8	50	100	88-110	1,1-Dichloroethene	25	91	80-120	88	90	61-145	2	14	
Bromofluorobenzene	50	88	86-115	Benzene	25	105	80-120	104	105	76-127	1	11	
Dibromofluoromethane	50	107	76-114	Trichloroethene	25	110	80-120	104	100	71-120	4	14	
				Toluene	25	109	80-120	108	105	76-125	3	13	
				Chlorobenzene	25	106	80-120	110	111	75-130	1	13	



VOLATILE ORGANICS

Client I.D.: WCC7S-14

Laboratory I.D.: 213838-005

Client: KENNEDY/JENKS

Matrix: Liquid

Method: EPA 8260

Extraction: EPA 5030 Purge & Trap

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Compound	Result (ug/L)	Detection Limit	Analytical Notes	Method Blank	Detection Limit	Analytical Notes
Acetone	ND	10		ND	10	
Benzene	ND	5		ND	5	
Bromobenzene	ND	5		ND	5	
Bromoform	ND	5		ND	5	
Bromomethane	ND	10		ND	10	
2-Butanone	ND	10		ND	10	
n-Butylbenzene	ND	5		ND	5	
sec-Butylbenzene	ND	5		ND	5	
tert-Butylbenzene	ND	5		ND	5	
Carbon disulfide	ND	5		ND	5	
Carbon tetrachloride	ND	5		ND	5	
Chlorobenzene	ND	5		ND	5	
Chloroethane	ND	10		ND	10	
2-Chloroethyl vinyl ether	ND	10		ND	10	
Chloroform	ND	5		ND	5	
Chloromethane	ND	10		ND	10	
2-Chlorotoluene	ND	5		ND	5	
4-Chlorotoluene	ND	5		ND	5	
Dibromochloromethane	ND	5		ND	5	
1,2-Dibromo-3-chloropropane	ND	5		ND	5	
1,2-Dibromoethane	ND	5		ND	5	
Dibromomethane	ND	5		ND	5	
1,2-Dichlorobenzene	ND	5		ND	5	
1,3-Dichlorobenzene	ND	5		ND	5	
1,4-Dichlorobenzene	ND	5		ND	5	
Dichlorodifluoromethane	ND	10		ND	10	
1,1-Dichloroethane	ND	5		ND	5	
1,2-Dichloroethane	ND	5		ND	5	
1,1-Dichloroethene	91	5		ND	5	
cis-1,2-Dichloroethene	ND	5		ND	5	
trans-1,2-Dichloroethene	ND	5		ND	5	
1,2-Dichloropropane	ND	5		ND	5	
1,3-Dichloropropane	ND	5		ND	5	
2,2-Dichloropropane	ND	5		ND	5	
1,1-Dichloropropene	ND	5		ND	5	
cis-1,3-Dichloropropene	ND	5		ND	5	
trans-1,3-Dichloropropene	ND	5		ND	5	
Ethylbenzene	ND	5		ND	5	
Freon 113	ND	5		ND	5	
Hexachlorobutadiene	ND	5		ND	5	
2-Hexanone	ND	10		ND	10	
Isopropylbenzene	ND	5		ND	5	
p-Isopropyltoluene	ND	5		ND	5	
Methylene chloride	ND	5		ND	5	
4-Methyl-2-pentanone	ND	10		ND	10	
Naphthalene	ND	5		ND	5	
n-Propylbenzene	ND	5		ND	5	

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OLATILE ORGANICS

ent I.D.: WCC7S-14
boratory I.D.: 213838-005
ent: KENNEDY/JENKS

Matrix: Liquid
Method: EPA 8260
Extraction: EPA 5030 Purge & Trap

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Compound	Result (ug/L)	Detection Limit	Analytical Notes	Method Blank	Detection Limit	Analytical Notes
Yrene	ND	5		ND	5	a - MS recovery out of control due to confirmed matrix effect. LCS, MSD and RPD are within acceptance limits.
1,1,2-Tetrachloroethane	ND	5		ND	5	
1,2,2-Tetrachloroethane	ND	5		ND	5	
Tetrachloroethene	ND	5		ND	5	
oluene	ND	5		ND	5	
2,3-Trichlorobenzene	ND	5		ND	5	
2,4-Trichlorobenzene	ND	5		ND	5	
1,1-Trichloroethane	ND	5		ND	5	
1,2-Trichloroethane	ND	5		ND	5	
ichloroethene	120	5		ND	5	
ichlorofluoromethane	ND	5		ND	5	
2,3-Trichloropropane	ND	5		ND	5	
2,4-Trimethylbenzene	ND	5		ND	5	
3,5-Trimethylbenzene	ND	5		ND	5	
nyl acetate	ND	10		ND	10	
nyl chloride	ND	10		ND	10	
p-Xylenes	ND	5		ND	5	
Xylene	ND	5		ND	5	

Quality Control Data Summary

Surrogate Recovery Data				Laboratory Control Sample, Matrix Spike/Matrix Spike Duplicate Data								
Compound	Spike Amount (ug/L)	Percent Recovery	QC Limits	Batch I.D.: 10814DC6		Sample I.D.: 213813-004						
				Compounds	Spike Amt.	LCS % Rec.	QC Limits	Spike % Rec.	Spk Dup % Rec.	QC Limits	RPD	QC Limits
Toluene-d8	50	101	88-110	1,1-Dichloroethene	25	89	80-120	93	88	61-145	6	14
Bromofluorobenzene	50	93	86-115	Benzene	25	105	80-120	113	107	76-127	5	11
Dibromofluoromethane	50	107	76-114	Trichloroethene	25	112	80-120	a	115	71-120	6	14
				Toluene	25	110	80-120	111	103	76-125	7	13
				Chlorobenzene	25	111	80-120	116	111	75-130	4	13



OLATILE ORGANICS

ent I.D.: WCC8S-14
boratory I.D.: 213838-007
ent: KENNEDY/JENKS

Matrix: Liquid
Method: EPA 8260
Extraction: EPA 5030 Purge & Trap

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Compound	Result (ug/L)	Detection Limit	Analytical Notes	Method Blank	Detection Limit	Analytical Notes
etone	ND	40	b	ND	10	b - Raised detection limit due to sample interference.
nzene	ND	20	b	ND	5	c - Result from a 1:4 dilution.
omobenzene	ND	20	b	ND	5	d - Result from a 1:40 dilution.
omochloromethane	ND	20	b	ND	5	
omodichloromethane	ND	20	b	ND	5	
omoform	ND	20	b	ND	10	
omomethane	ND	40	b	ND	10	
Butanone	ND	40	b	ND	10	
Butylbenzene	ND	20	b	ND	5	
c-Butylbenzene	ND	20	b	ND	5	
t-Butylbenzene	ND	20	b	ND	5	
arbon disulfide	ND	20	b	ND	5	
arbon tetrachloride	ND	20	b	ND	5	
chlorobenzene	ND	20	b	ND	5	
chloroethane	ND	40	b	ND	10	
Chloroethyl vinyl ether	ND	40	b	ND	10	
chloroform	ND	20	b	ND	5	
chloromethane	ND	40	b	ND	10	
Chlorotoluene	ND	20	b	ND	5	
Chlorotoluene	ND	20	b	ND	5	
ibromochloromethane	ND	20	b	ND	5	
2-Dibromo-3-chloropropane	ND	20	b	ND	5	
2-Dibromoethane	ND	20	b	ND	5	
ibromomethane	ND	20	b	ND	5	
2-Dichlorobenzene	ND	20	b	ND	5	
3-Dichlorobenzene	ND	20	b	ND	5	
4-Dichlorobenzene	ND	20	b	ND	5	
ichlorodifluoromethane	ND	40	b	ND	10	
,1-Dichloroethane	ND	20	b	ND	5	
,2-Dichloroethane	ND	20	b	ND	5	
,1-Dichloroethene	3500	200	b,d	ND	5	
is-1,2-Dichloroethene	ND	20	b	ND	5	
ans-1,2-Dichloroethene	40	20	b,c	ND	5	
,2-Dichloropropane	ND	20	b	ND	5	
,3-Dichloropropane	ND	20	b	ND	5	
,2-Dichloropropane	ND	20	b	ND	5	
,1-Dichloropropene	ND	20	b	ND	5	
is-1,3-Dichloropropene	ND	20	b	ND	5	
rans-1,3-Dichloropropene	ND	20	b	ND	5	
Ethylbenzene	ND	20	b	ND	5	
Freon 113	ND	20	b	ND	5	
hexachlorobutadiene	ND	20	b	ND	10	
-Hexanone	ND	40	b	ND	5	
sopropylbenzene	ND	20	b	ND	5	
-Isopropyltoluene	ND	20	b	ND	5	
ethylene chloride	ND	20	b	ND	5	
4-Methyl-2-pentanone	ND	40	b	ND	10	
Naphthalene	ND	20	b	ND	5	
-Propylbenzene	ND	20	b	ND	5	

(continued on next page)

Sample Method Blank

Date Sampled: 3/01/96

N/A

Date Analyzed: 3/07/96 3/07/96



VOLATILE ORGANICS

Client I.D.: WCC8S-14
Laboratory I.D.: 213838-007
Client: KENNEDY/JENKS

Matrix: Liquid
Method: EPA 8260
Extraction: EPA 5030 Purge & Trap

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Compound	Result (ug/L)	Detection Limit	Analytical Notes	Method Blank	Detection Limit	Analytical Notes
Styrene	ND	20	b	ND	5	a - MS recovery out of control due to confirmed matrix effect. LCS, MSD and RPD are within acceptance limits.
1,1,2-Tetrachloroethane	ND	20	b	ND	5	
1,2,2-Tetrachloroethane	ND	20	b	ND	5	
Tetrachloroethylene	ND	20	b	ND	5	
Toluene	ND	20	b	ND	5	b - Raised detection limit due to sample interference.
2,3-Trichlorobenzene	ND	20	b	ND	5	
2,4-Trichlorobenzene	ND	20	b	ND	5	c - Result from a 1:4 dilution.
1,1-Trichloroethane	120	20	b,c	ND	5	
1,2-Trichloroethane	ND	20	b	ND	5	d - Result from a 1:40 dilution.
Trichloroethylene	2100	200	b,d	ND	5	
Trichlorofluoromethane	ND	20	b	ND	5	
2,3-Trichloropropane	ND	20	b	ND	5	
2,4-Trimethylbenzene	ND	20	b	ND	5	
3,5-Trimethylbenzene	ND	20	b	ND	5	
/n-butyl acetate	ND	40	b	ND	10	
/n-butyl chloride	ND	40	b	ND	10	
n,p-Xylenes	ND	20	b	ND	5	
m-Xylene	ND	20	b	ND	5	

Quality Control Data Summary

Surrogate Recovery Data				Laboratory Control Sample, Matrix Spike/Matrix Spike Duplicate Data								
Compound	Spike Amount (ug/L)	Percent Recovery	QC Limits	Batch I.D.: 10814DC7			Sample I.D.: 213813-004					
	Compounds	Spike Amt.	LCS %Rec.	QC Limits	Spike %Rec.	Spk Dup %Rec.	QC Limits	RPD	QC Limits			
Toluene-d8	50	100	88-110	1,1-Dichloroethene	25	91	80-120	93	88	61-145	6	14
Bromofluorobenzene	50	92	86-115	Benzene	25	105	80-120	113	107	76-127	5	11
Dibromofluoromethane	50	108	76-114	Trichloroethylene	25	110	80-120	a	115	71-120	6	14
				Toluene	25	109	80-120	111	103	76-125	7	13
				Chlorobenzene	25	106	80-120	116	111	75-130	4	13



OLATILE ORGANICS

Sample I.D.: WCC9S-14
Laboratory I.D.: 213841-002
Analyst: KENNEDY/JENKS

Matrix: Liquid
Method: EPA 8260
Extraction: EPA 5030 Purge & Trap

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Compound	Result (ug/L)	Detection	Analytical	Method	Detection	Analytical Notes
		Limit	Notes	Blank	Limit	
Acetone	ND	10		ND	10	
Benzene	ND	5		ND	5	
o-xylene	ND	5		ND	5	
m-xylene	ND	5		ND	5	
p-xylene	ND	5		ND	5	
o-chloromethane	ND	5		ND	5	
m-chloromethane	ND	5		ND	5	
p-chloromethane	ND	5		ND	5	
o-chloroform	ND	5		ND	5	
m-chloroform	ND	10		ND	10	
p-chloroform	ND	10		ND	10	
3-butanone	ND	5		ND	5	
3-methylbenzene	ND	5		ND	5	
o-Butylbenzene	ND	5		ND	5	
t-Butylbenzene	ND	5		ND	5	
Carbon disulfide	ND	5		ND	5	
Carbon tetrachloride	ND	5		ND	5	
Chlorobenzene	ND	5		ND	5	
Chloroethane	ND	10		ND	10	
Chloroethyl vinyl ether	ND	10		ND	10	
Chloroform	ND	5		ND	5	
Chloromethane	ND	10		ND	10	
Chlorotoluene	ND	5		ND	5	
Chlorotoluene	ND	5		ND	5	
bromochloromethane	ND	5		ND	5	
2-Dibromo-3-chloropropane	ND	5		ND	5	
2-Dibromoethane	ND	5		ND	5	
bromomethane	ND	5		ND	5	
2-Dichlorobenzene	ND	5		ND	5	
3-Dichlorobenzene	ND	5		ND	5	
4-Dichlorobenzene	ND	5		ND	5	
chlorodifluoromethane	ND	10		ND	10	
1-Dichloroethane	ND	5		ND	5	
2-Dichloroethane	ND	5		ND	5	
1-Dichloroethene	ND	5		ND	5	
s-1,2-Dichloroethene	ND	5		ND	5	
trans-1,2-Dichloroethene	ND	5		ND	5	
2-Dichloropropane	ND	5		ND	5	
3-Dichloropropane	ND	.5		ND	5	
2-Dichloropropane	ND	5		ND	5	
1-Dichloropropene	ND	5		ND	5	
s-1,3-Dichloropropene	ND	5		ND	5	
trans-1,3-Dichloropropene	ND	5		ND	5	
ethylbenzene	ND	5		ND	5	
neon 113	ND	5		ND	5	
exachlorobutadiene	ND	5		ND	5	
Hexanone	ND	10		ND	10	
isopropylbenzene	ND	.5		ND	5	
Isopropyltoluene	ND	5		ND	5	
ethylene chloride	ND	5		ND	5	
-Methyl-2-pentanone	ND	10		ND	10	
aphthalene	ND	5		ND	5	
-Propylbenzene	ND	5		ND	5	

(continued on next page)

Sample	Method Blank	
Date Sampled:	2/29/96	N/A
Date Analyzed:	3/05/96	3/05/96

/OLATILE ORGANICS

lient I.D.: WCC9S-14
aboratory I.D.: 213841-002
lient: KENNEDY/JENKS

Matrix: Liquid
Method: EPA 8260
Extraction: EPA 5030 Purge & Trap

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(continued from previous page)

Compound	Result (ug/L)	Detection Limit	Analytical Notes	Method Blank	Detection Limit	Analytical Notes
tyrene	ND	5		ND	5	
1,1,2-Tetrachloroethane	ND	5		ND	5	
1,2,2-Tetrachloroethane	ND	5		ND	5	
1,2,2-Tetrachloroethene	ND	5		ND	5	
oluene	ND	5		ND	5	
2,3-Trichlorobenzene	ND	5		ND	5	
2,4-Trichlorobenzene	ND	5		ND	5	
1,1-Trichloroethane	ND	5		ND	5	
1,2-Trichloroethane	ND	5		ND	5	
richloroethene	17	5		ND	5	
richlorofluoromethane	ND	5		ND	5	
2,3-Trichloropropane	ND	5		ND	5	
2,4-Trimethylbenzene	ND	5		ND	5	
3,5-Trimethylbenzene	ND	5		ND	5	
inyl acetate	ND	10		ND	10	
inyl chloride	ND	10		ND	10	
1,p-Xylenes	ND	.5		ND	5	
-Xylene	ND	5		ND	5	

Quality Control Data Summary

Surrogate Recovery Data				Laboratory Control Sample, Matrix Spike/Matrix Spike Duplicate Data									
Compound	Spike Amount (ug/L)	Percent Recovery	QC Limits	Batch I.D.: 10813DC5				Sample I.D.: 213813-007					
				Compounds	Spike Amt.	LCS %Rec.	QC Limits	Spike %Rec.	Spk Dup %Rec.	QC Limits	RPD	QC Limits	
Toluene-d8	50	99	88-110	1,1-Dichloroethene	25	83	80-120	95	85	61-145	11	14	
Bromofluorobenzene	50	91	86-115	Benzene	25	102	80-120	106	98	76-127	8	11	
Dibromofluoromethane	50	107	76-114	Trichloroethene	25	111	80-120	113	101	71-120	11	14	
				Toluene	25	102	80-120	114	104	76-125	9	13	
				Chlorobenzene	25	104	80-120	113	107	75-130	5	13	

OLATILE ORGANICS



ent I.D.: WCC10S-14
boratory I.D.: 213838-001
ent: KENNEDY/JENKS

Matrix: Liquid
Method: EPA 8260
Extraction: EPA 5030 Purge & Trap

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Compound	Result (ug/L)	Detection Limit	Analytical Notes	Method Blank	Detection Limit	Analytical Notes
etone	ND	10		ND	10	
nzene	ND	5		ND	5	
omobenzene	ND	5		ND	5	
omochloromethane	ND	5		ND	5	
omodichloromethane	ND	5		ND	5	
omoform	ND	5		ND	5	
omomethane	ND	10		ND	10	
3Butanone	ND	10		ND	10	
3Butylbenzene	ND	5		ND	5	
c-Butylbenzene	ND	5		ND	5	
t-Butylbenzene	ND	5		ND	5	
arbon disulfide	ND	5		ND	5	
arbon tetrachloride	ND	5		ND	5	
lorobenzene	ND	5		ND	5	
loroethane	ND	10		ND	10	
Chloroethyl vinyl ether	ND	10		ND	10	
loroform	ND	5		ND	5	
loromethane	ND	10		ND	10	
Chlorotoluene	ND	5		ND	5	
Chlorotoluene	ND	5		ND	5	
bromochloromethane	ND	5		ND	5	
2-Dibromo-3-chloropropane	ND	5		ND	5	
2-Dibromoethane	ND	5		ND	5	
bromomethane	ND	5		ND	5	
2-Dichlorobenzene	ND	5		ND	5	
3-Dichlorobenzene	ND	5		ND	5	
4-Dichlorobenzene	ND	5		ND	5	
chlorodifluoromethane	ND	10		ND	10	
1-Dichloroethane	ND	5		ND	5	
2-Dichloroethane	ND	5		ND	5	
1-Dichloroethene	20	5		ND	5	
s-1,2-Dichloroethene	ND	5		ND	5	
ns-1,2-Dichloroethene	ND	5		ND	5	
2-Dichloropropane	ND	5		ND	5	
3-Dichloropropane	ND	5		ND	5	
2-Dichloropropane	ND	5		ND	5	
1-Dichloropropene	ND	5		ND	5	
s-1,3-Dichloropropene	ND	5		ND	5	
ns-1,3-Dichloropropene	ND	5		ND	5	
hylenzene	ND	5		ND	5	
eon 113	ND	5		ND	5	
exachlorobutadiene	ND	5		ND	5	
Hexanone	ND	10		ND	10	
opropylbenzene	ND	5		ND	5	
Isopropyltoluene	ND	5		ND	5	
ethylene chloride	ND	5		ND	5	
Methyl-2-pentanone	ND	10		ND	10	
aphthalene	ND	5		ND	5	
Propylbenzene	ND	5		ND	5	

(continued on next page)

Sample	Method Blank	
Date Sampled:	3/01/96	N/A
Date Analyzed:	3/06/96	3/06/96

OLATILE ORGANICS



Sample I.D.: WCC10S-14
Laboratory I.D.: 213838-001
Analyst: KENNEDY/JENKS

Matrix: Liquid
Method: EPA 8260
Extraction: EPA 5030 Purge & Trap

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(continued from previous page)

Compound	Result (ug/L)	Detection Limit	Analytical Notes	Method Blank	Detection Limit	Analytical Notes
rene	ND	5		ND	5	a - MS recovery out of control due to confirmed matrix effect. LCS, MSD and RPD are within acceptance limits.
,1,2-Tetrachloroethane	ND	5		ND	5	
,2,2-Tetrachloroethane	ND	5		ND	5	
trachloroethene	ND	5		ND	5	
luene	ND	5		ND	5	
,3-Trichlorobenzene	ND	5		ND	5	
,4-Trichlorobenzene	ND	5		ND	5	
,1-Trichloroethane	ND	5		ND	5	
,2-Trichloroethane	ND	5		ND	5	
chloroethene	120	5		ND	5	
chlorofluoromethane	ND	5		ND	5	
,3-Trichloropropane	ND	5		ND	5	
,4-Trimethylbenzene	ND	5		ND	5	
,5-Trimethylbenzene	ND	5		ND	5	
yl acetate	ND	10		ND	10	
yl chloride	ND	10		ND	10	
p-Xylenes	ND	5		ND	5	
Xylene	ND	5		ND	5	

Quality Control Data Summary

Surrogate Recovery Data				Laboratory Control Sample, Matrix Spike/Matrix Spike Duplicate Data								
Compound	Spike Amount (ug/L)	Percent Recovery	QC Limits	Batch I.D.: 10814DC6			Sample I.D.: 213813-004					
				Compounds	Spike Amt. (ug/L)	LCS %Rec.	QC Limits	Spike %Rec.	Spk Dup %Rec.	QC Limits	RPD	QC Limits
oluene-d8	50	98	88-110	1,1-Dichloroethene	25	89	80-120	93	88	61-145	6	14
romofluorobenzene	50	90	86-115	Benzene	25	105	80-120	113	107	76-127	5	11
ibromofluoromethane	50	103	76-114	Trichloroethene	25	112	80-120	a	115	71-120	6	14
				Toluene	25	110	80-120	111	103	76-125	7	13
				Chlorobenzene	25	111	80-120	116	111	75-130	4	13

/OLATILE ORGANICS



lient I.D.: WCC11S-14
aboratory I.D.: 213838-003
lient: KENNEDY/JENKS

Matrix: Liquid
Method: EPA 8260
Extraction: EPA 5030 Purge & Trap

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Compound	Result (ug/L)	Detection Limit	Analytical Notes	Method Blank	Detection Limit	Analytical Notes
cetone	ND	10		ND	10	
enzene	ND	5		ND	5	
romobenzene	ND	5		ND	5	
romochloromethane	ND	5		ND	5	
romodichloromethane	ND	5		ND	5	
romoform	ND	5		ND	5	
romomethane	ND	10		ND	10	
-Butanone	ND	10		ND	10	
-Butylbenzene	ND	5		ND	5	
ec-Butylbenzene	ND	5		ND	5	
ert-Butylbenzene	ND	5		ND	5	
arbon disulfide	ND	5		ND	5	
arbon tetrachloride	ND	5		ND	5	
chlorobenzene	ND	5		ND	5	
chloroethane	ND	10		ND	10	
-Chloroethyl vinyl ether	ND	10		ND	10	
chloroform	ND	5		ND	5	
chloromethane	ND	10		ND	10	
-Chlorotoluene	ND	5		ND	5	
-Chlorotoluene	ND	5		ND	5	
bromochloromethane	ND	5		ND	5	
,2-Dibromo-3-chloropropane	ND	5		ND	5	
,2-Dibromoethane	ND	5		ND	5	
bromomethane	ND	5		ND	5	
,2-Dichlorobenzene	ND	5		ND	5	
,3-Dichlorobenzene	ND	5		ND	5	
,4-Dichlorobenzene	ND	5		ND	5	
Dichlorodifluoromethane	ND	10		ND	10	
,1-Dichloroethane	ND	5		ND	5	
,2-Dichloroethane	ND	5		ND	5	
,1-Dichloroethene	30	5		ND	5	
is-1,2-Dichloroethene	ND	5		ND	5	
ans-1,2-Dichloroethene	ND	5		ND	5	
,2-Dichloropropane	ND	5		ND	5	
,3-Dichloropropane	ND	5		ND	5	
,2-Dichloropropane	ND	5		ND	5	
,1-Dichloropropene	ND	5		ND	5	
is-1,3-Dichloropropene	ND	5		ND	5	
ans-1,3-Dichloropropene	ND	5		ND	5	
Ethylbenzene	ND	5		ND	5	
reon 113	ND	5		ND	5	
hexachlorobutadiene	ND	5		ND	5	
-Hexanone	ND	10		ND	10	
opropylbenzene	ND	5		ND	5	
-Isopropyltoluene	ND	5		ND	5	
ethylene chloride	ND	5		ND	5	
-Methyl-2-pentanone	ND	10		ND	10	
aphthalene	ND	5		ND	5	
-Propylbenzene	ND	5		ND	5	
						Sample Method Blank
						Date Sampled: 3/01/96 N/A
						Date Analyzed: 3/06/96 3/06/96

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'OLATILE ORGANICS

ient I.D.: WCC11S-14
aboratory I.D.: 213838-003
ient: KENNEDY/JENKS

Matrix: Liquid
Method: EPA 8260
Extraction: EPA 5030 Purge & Trap

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Compound	Result (ug/L)	Detection Limit	Analytical Notes	Method Blank	Detection Limit	Analytical Notes
Yrene	ND	5		ND	5	a - MS recovery out of control due to confirmed matrix effect. LCS, MSD and RPD are within acceptance limits.
1,1,2-Tetrachloroethane	ND	5		ND	5	
1,2,2-Tetrachloroethane	ND	5		ND	5	
1,2,3-Tetrachloroethene	ND	5		ND	5	
1,3-Di氯oethylene	ND	5		ND	5	
1,4-Di氯oethylene	ND	5		ND	5	
1,1-Dichloroethane	ND	5		ND	5	
1,1-Dichloroethene	ND	5		ND	5	
1,1-Dimethylbenzene	ND	5		ND	5	
1,1-Dimethylchloroethane	ND	5		ND	5	
1,1-Dimethylbenzene	ND	5		ND	5	
1,1-Dimethylchloroethane	ND	5		ND	5	
1,1-Dimethylbenzene	ND	10		ND	10	
1,1-Dimethylchloroethane	ND	10		ND	10	
1,1-Dimethylbenzene	ND	5		ND	5	
1,1-Dimethylchloroethane	ND	5		ND	5	
1,1-Dimethylbenzene	ND	5		ND	5	
1,1-Dimethylchloroethane	ND	5		ND	5	

Quality Control Data Summary

Surrogate Recovery Data				Laboratory Control Sample, Matrix Spike/Matrix Spike Duplicate Data									
Compound	Spike Amount (ug/L)	Percent Recovery	QC Limits	Batch I.D.: 10814DC6		Sample I.D.: 213813-004							
				Compounds	Spike Amt.	LCS %Rec.	QC Limits	Spike %Rec.	Spk Dup %Rec.	QC Limits	RPD	QC Limits	
Toluene-d8	50	99	88-110	1,1-Dichloroethene	25	89	80-120	93	88	61-145	6	14	
Bromofluorobenzene	50	92	86-115	Benzene	25	105	80-120	113	107	76-127	5	11	
Dibromofluoromethane	50	108	76-114	Trichloroethene	25	112	80-120	a	115	71-120	6	14	
				Toluene	25	110	80-120	111	103	76-125	7	13	
				Chlorobenzene	25	111	80-120	116	111	75-130	4	13	

OLATILE ORGANICS



ent I.D.: WCC12S-14
coratory I.D.: 213838-004
ent: KENNEDY/JENKS

Matrix: Liquid
Method: EPA 8260
Extraction: EPA 5030 Purge & Trap

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Compound	Result (ug/L)	Detection Limit	Analytical Notes	Method Blank	Detection Limit	Analytical Notes
etone	ND	10		ND	10	
nzene	ND	5		ND	5	
omobenzene	ND	5		ND	5	
omochloromethane	ND	5		ND	5	
omodichloromethane	ND	5		ND	5	
omoform	ND	5		ND	5	
omomethane	ND	10		ND	10	
3utanolone	ND	10		ND	10	
3utylbenzene	ND	5		ND	5	
c-Butylbenzene	ND	5		ND	5	
t-Butylbenzene	ND	5		ND	5	
arbon disulfide	ND	5		ND	5	
arbon tetrachloride	ND	5		ND	5	
lorobenzene	ND	5		ND	5	
loroethane	ND	10		ND	10	
Chloroethyl vinyl ether	ND	10		ND	10	
loroform	ND	5		ND	5	
loromethane	ND	10		ND	10	
Chlorotoluene	ND	5		ND	5	
Chlorotoluene	ND	5		ND	5	
bromochloromethane	ND	5		ND	5	
2-Dibromo-3-chloropropane	ND	5		ND	5	
2-Dibromoethane	ND	5		ND	5	
bromomethane	ND	5		ND	5	
2-Dichlorobenzene	ND	5		ND	5	
3-Dichlorobenzene	ND	5		ND	5	
4-Dichlorobenzene	ND	5		ND	5	
chlorodifluoromethane	ND	10		ND	10	
1-Dichloroethane	13	5		ND	5	
2-Dichloroethane	ND	5		ND	5	
1-Dichloroethene	47	5		ND	5	
s-1,2-Dichloroethene	ND	5		ND	5	
ns-1,2-Dichloroethene	ND	5		ND	5	
2-Dichloropropane	ND	5		ND	5	
3-Dichloropropane	ND	5		ND	5	
2-Dichloropropane	ND	5		ND	5	
1-Dichloropropene	ND	5		ND	5	
s-1,3-Dichloropropene	ND	5		ND	5	
ns-1,3-Dichloropropene	ND	5		ND	5	
hylenes	ND	5		ND	5	
eon 113	ND	5		ND	5	
exachlorobutadiene	ND	5		ND	5	
Hexanone	ND	10		ND	10	Sample
opropylbenzene	ND	5		ND	5	Method Blank
Isopropyltoluene	ND	5		ND	5	Date Sampled:
ethylene chloride	ND	5		ND	5	3/01/96
Methyl-2-pentanone	ND	10		ND	10	N/A
aphthalene	ND	5		ND	5	Date Analyzed:
Propylbenzene	ND	5		ND	5	3/06/96

(continued on next page)

VOLATILE ORGANICS



Client I.D.: WCC12S-14
 Laboratory I.D.: 213838-004
 Client: KENNEDY/JENKS

Matrix: Liquid
 Method: EPA 8260
 Extraction: EPA 5030 Purge & Trap

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(continued from previous page)

Compound	Result (ug/L)	Detection Limit	Analytical Notes	Method Blank	Detection Limit	Analytical Notes
Styrene	ND	5		ND	5	a - MS recovery out of control due to confirmed matrix effect. LCS, MSD and RPD are within acceptance limits.
1,1,1,2-Tetrachloroethane	ND	5		ND	5	
1,1,2,2-Tetrachloroethane	ND	5		ND	5	
Tetrachloroethene	ND	5		ND	5	
Toluene	ND	5		ND	5	
1,2,3-Trichlorobenzene	ND	5		ND	5	
1,2,4-Trichlorobenzene	ND	5		ND	5	
1,1,1-Trichloroethane	ND	5		ND	5	
1,1,2-Trichloroethane	ND	5		ND	5	
Trichloroethene	150	5		ND	5	
Trichlorofluoromethane	ND	5		ND	5	
1,2,3-Trichloropropane	ND	5		ND	5	
1,2,4-Trimethylbenzene	ND	5		ND	5	
1,3,5-Trimethylbenzene	ND	5		ND	5	
Vinyl acetate	ND	10		ND	10	
Vinyl chloride	ND	10		ND	10	
m,p-Xylenes	ND	5		ND	5	
-Xylene	ND	5		ND	5	

Quality Control Data Summary

Surrogate Recovery Data				Laboratory Control Sample, Matrix Spike/Matrix Spike Duplicate Data								
Compound	Spike Amount (ug/L)	Percent Recovery	QC Limits	Batch I.D.: 10814DC6		Sample I.D.: 213813-004						
				Compounds	Spike Amt. (ug/L)	LCS %Rec.	QC Limits	Spike %Rec.	Spk Dup %Rec.	QC Limits	RPD	QC Limits
Toluene-d8	50	99	88-110	1,1-Dichloroethene	25	89	80-120	93	88	61-145	6	14
Bromofluorobenzene	50	92	86-115	Benzene	25	105	80-120	113	107	76-127	5	11
Dibromofluoromethane	50	107	76-114	Trichloroethene	25	112	80-120	a	115	71-120	6	14
				Toluene	25	110	80-120	111	103	76-125	7	13
				Chlorobenzene	25	111	80-120	116	111	75-130	4	13

VOLATILE ORGANICS



Client I.D.: DACP1-14
 Laboratory I.D.: 213865-007
 Client: KENNEDY/JENKS

Matrix: Liquid
 Method: EPA 8260
 Extraction: EPA 5030 Purge & Trap

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Compound	Result (ug/L)	Detection Limit	Analytical Notes	Method Blank	Detection Limit	Analytical Notes
Acetone	ND	200	a	ND	10	a - Raised detection limit due to sample interference.
Benzene	ND	100	a	ND	5	b - Result from a 1:20 dilution.
Bromobenzene	ND	100	a	ND	5	
Bromochloromethane	ND	100	a	ND	5	
Bromodichloromethane	ND	100	a	ND	5	
Bromoform	ND	100	a	ND	5	
Bromomethane	ND	200	a	ND	10	
2-Butanone	ND	200	a	ND	10	
1-Butylbenzene	ND	100	a	ND	5	
sec-Butylbenzene	ND	100	a	ND	5	
tert-Butylbenzene	ND	100	a	ND	5	
Carbon disulfide	ND	100	a	ND	5	
Carbon tetrachloride	ND	100	a	ND	5	
Chlorobenzene	ND	100	a	ND	5	
Chloroethane	ND	200	a	ND	10	
2-Chloroethyl vinyl ether	ND	200	a	ND	10	
Chloroform	ND	100	a	ND	5	
Chloromethane	ND	200	a	ND	10	
2-Chlorotoluene	ND	100	a	ND	5	
4-Chlorotoluene	ND	100	a	ND	5	
Dibromochloromethane	ND	100	a	ND	5	
1,2-Dibromo-3-chloropropane	ND	100	a	ND	5	
1,2-Dibromoethane	ND	100	a	ND	5	
Dibromomethane	ND	100	a	ND	5	
1,2-Dichlorobenzene	ND	100	a	ND	5	
1,3-Dichlorobenzene	ND	100	a	ND	5	
1,4-Dichlorobenzene	ND	100	a	ND	5	
Dichlorodifluoromethane	ND	200	a	ND	10	
1,1-Dichloroethane	ND	100	a	ND	5	
1,2-Dichloroethane	ND	100	a	ND	5	
1,1-Dichloroethene	100	100	a,b	ND	5	
cis-1,2-Dichloroethene	100	100	a,b	ND	5	
trans-1,2-Dichloroethene	ND	100	a	ND	5	
1,2-Dichloropropane	ND	100	a	ND	5	
1,3-Dichloropropane	ND	100	a	ND	5	
2,2-Dichloropropane	ND	100	a	ND	5	
1,1-Dichloropropene	ND	100	a	ND	5	
cis-1,3-Dichloropropene	ND	100	a	ND	5	
trans-1,3-Dichloropropene	ND	100	a	ND	5	
Ethylbenzene	ND	100	a	ND	5	
Freon 113	ND	100	a	ND	5	
Hexachlorobutadiene	ND	100	a	ND	5	
2-Hexanone	ND	200	a	ND	10	
Isopropylbenzene	ND	100	a	ND	5	
p-Isopropyltoluene	ND	100	a	ND	5	
Methylene chloride	ND	100	a	ND	5	
4-Methyl-2-pentanone	ND	200	a	ND	10	
Naphthalene	ND	100	a	ND	5	
n-Propylbenzene	ND	100	a	ND	5	

(continued on next page)

Sample	Method Blank	
Date Sampled:	3/04/96	N/A
Date Analyzed:	3/07/96	3/07/96

VOLATILE ORGANICS



Client I.D.: DACP1-14
 Laboratory I.D.: 213865-007
 Client: KENNEDY/JENKS

Matrix: Liquid
 Method: EPA 8260
 Extraction: EPA 5030 Purge & Trap

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Compound	Result (ug/L)	Detection Limit	Analytical Notes	Method Blank	Detection Limit	Analytical Notes
Styrene	ND	100	a	ND	5	a - Raised detection limit due to sample interference.
1,1,1,2-Tetrachloroethane	ND	100	a	ND	5	b - Result from a 1:20 dilution.
1,1,2,2-Tetrachloroethane	ND	100	a	ND	5	c - Result from a 1:100 dilution.
Tetrachloroethylene	ND	100	a	ND	5	
Toluene	260	100	a,b	ND	5	
1,2,3-Trichlorobenzene	ND	100	a	ND	5	
1,2,4-Trichlorobenzene	ND	100	a	ND	5	
1,1,1-Trichloroethane	ND	100	a	ND	5	
1,1,2-Trichloroethane	ND	100	a	ND	5	
Trichloroethylene	15000	500	a,c	ND	5	
Trichlorofluoromethane	ND	100	a	ND	5	
1,2,3-Trichloropropane	ND	100	a	ND	5	
1,2,4-Trimethylbenzene	ND	100	a	ND	5	
1,3,5-Trimethylbenzene	ND	100	a	ND	5	
Vinyl acetate	ND	200	a	ND	10	
Vinyl chloride	ND	200	a	ND	10	
m,p-Xylenes	ND	100	a	ND	5	
o-Xylene	ND	100	a	ND	5	

Quality Control Data Summary

Surrogate Recovery Data				Laboratory Control Sample, Matrix Spike/Matrix Spike Duplicate Data								
Compound	Spike Amount (ug/L)	Percent Recovery	QC Limits	Batch I.D.: 10872DC7		Sample I.D.: 213865-003						
	Compounds	Spike Amt. (ug/L)	LCS %Rec.	QC Limits	Spike %Rec.	Spk Dup %Rec.	QC Limits	RPD	QC Limits			
Toluene-d8	50	102	88-110	1,1-Dichloroethene	25	91	80-120	88	90	61-145	2	14
Bromofluorobenzene	50	95	86-115	Benzene	25	105	80-120	104	105	76-127	1	11
Dibromofluoromethane	50	108	76-114	Trichloroethylene	25	110	80-120	104	100	71-120	4	14
				Toluene	25	109	80-120	108	105	76-125	3	13
				Chlorobenzene	25	106	80-120	110	111	75-130	1	13

VOLATILE ORGANICS



Client I.D.: WCC1D-14
 Laboratory I.D.: 213841-003
 Client: KENNEDY/JENKS

Matrix: Liquid
 Method: EPA 8260
 Extraction: EPA 5030 Purge & Trap

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Compound	Result (ug/L)	Detection Limit	Analytical Notes	Method Blank	Detection Limit	Analytical Notes
Acetone	ND	10		ND	10	
Benzene	ND	5		ND	5	
Bromobenzene	ND	5		ND	5	
Bromochloromethane	ND	5		ND	5	
Bromodichloromethane	ND	5		ND	5	
Bromoform	ND	5		ND	5	
Bromomethane	ND	10		ND	10	
2-Butanone	ND	10		ND	10	
n-Butylbenzene	ND	5		ND	5	
sec-Butylbenzene	ND	5		ND	5	
tert-Butylbenzene	ND	5		ND	5	
Carbon disulfide	ND	5		ND	5	
Carbon tetrachloride	ND	5		ND	5	
Chlorobenzene	ND	5		ND	5	
Chloroethane	ND	10		ND	10	
2-Chloroethyl vinyl ether	ND	10		ND	10	
Chloroform	ND	5		ND	5	
Chloromethane	ND	10		ND	10	
2-Chlorotoluene	ND	5		ND	5	
4-Chlorotoluene	ND	5		ND	5	
Dibromochloromethane	ND	5		ND	5	
1,2-Dibromo-3-chloropropane	ND	5		ND	5	
1,2-Dibromoethane	ND	5		ND	5	
Dibromomethane	ND	5		ND	5	
1,2-Dichlorobenzene	ND	5		ND	5	
1,3-Dichlorobenzene	ND	5		ND	5	
1,4-Dichlorobenzene	ND	5		ND	5	
Dichlorodifluoromethane	ND	10		ND	10	
1,1-Dichloroethane	ND	5		ND	5	
1,2-Dichloroethane	ND	5		ND	5	
1,1-Dichloroethene	ND	5		ND	5	
cis-1,2-Dichloroethene	ND	5		ND	5	
trans-1,2-Dichloroethene	ND	5		ND	5	
1,2-Dichloropropane	ND	5		ND	5	
1,3-Dichloropropane	ND	5		ND	5	
2,2-Dichloropropane	ND	5		ND	5	
1,1-Dichloropropene	ND	5		ND	5	
cis-1,3-Dichloropropene	ND	5		ND	5	
trans-1,3-Dichloropropene	ND	5		ND	5	
Ethylbenzene	ND	5		ND	5	
Freon 113	ND	5		ND	5	
Hexachlorobutadiene	ND	5		ND	5	
2-Hexanone	ND	10		ND	10	
Isopropylbenzene	ND	5		ND	5	
p-Isopropyltoluene	ND	5		ND	5	
Methylene chloride	ND	5		ND	5	
4-Methyl-2-pentanone	ND	10		ND	10	
Naphthalene	ND	5		ND	5	
n-Propylbenzene	ND	5		ND	5	

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VOLATILE ORGANICS

Client I.D.: WCC1D-14

Laboratory I.D.: 213841-003

Client: KENNEDY/JENKS

Matrix: Liquid

Method: EPA 8260

Extraction: EPA 5030 Purge & Trap

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(continued from previous page)

Compound	Result (ug/L)	Detection Limit	Analytical Notes	Method Blank	Detection Limit	Analytical Notes
Styrene	ND	5		ND	5	
1,1,1,2-Tetrachloroethane	ND	5		ND	5	
1,1,2,2-Tetrachloroethane	ND	5		ND	5	
Tetrachloroethylene	ND	5		ND	5	
Toluene	ND	5		ND	5	
1,2,3-Trichlorobenzene	ND	5		ND	5	
1,2,4-Trichlorobenzene	ND	5		ND	5	
1,1,1-Trichloroethane	ND	5		ND	5	
1,1,2-Trichloroethane	ND	5		ND	5	
Trichloroethylene	ND	5		ND	5	
Trichlorofluoromethane	ND	5		ND	5	
1,2,3-Trichloropropane	ND	5		ND	5	
1,2,4-Trimethylbenzene	ND	5		ND	5	
1,3,5-Trimethylbenzene	ND	5		ND	5	
Vinyl acetate	ND	10		ND	10	
Vinyl chloride	ND	10		ND	10	
n,p-Xylenes	ND	5		ND	5	
o-Xylene	ND	5		ND	5	

Quality Control Data Summary

Surrogate Recovery Data				Laboratory Control Sample, Matrix Spike/Matrix Spike Duplicate Data									
Compound	Spike Amount (ug/L)	Percent Recovery	QC Limits	Batch I.D.: 10813DC5				Sample I.D.: 213813-007					
				Compounds	Spike Amt.	LCS %Rec.	QC Limits	Spike %Rec.	Spk Dup %Rec.	QC Limits	RPD	QC Limits	
Toluene-d8	50	99	88-110	1,1-Dichloroethene	25	83	80-120	95	85	61-145	11	14	
Bromofluorobenzene	50	92	86-115	Benzene	25	102	80-120	106	98	76-127	8	11	
Dibromofluoromethane	50	102	76-114	Trichloroethylene	25	111	80-120	113	101	71-120	11	14	
				Toluene	25	102	80-120	114	104	76-125	9	13	
				Chlorobenzene	25	104	80-120	113	107	75-130	5	13	

VOLATILE ORGANICS



Client I.D.: WCC3D-14
 Laboratory I.D.: 213865-003
 Client: KENNEDY/JENKS

Matrix: Liquid
 Method: EPA 8260
 Extraction: EPA 5030 Purge & Trap

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Compound	Result (ug/L)	Detection Limit	Analytical Notes	Method Blank	Detection Limit	Analytical Notes
Acetone	ND	10		ND	10	
Benzene	ND	5		ND	5	
Bromobenzene	ND	5		ND	5	
Bromochloromethane	ND	5		ND	5	
Bromodichloromethane	ND	5		ND	5	
Bromoform	ND	5		ND	5	
Bromomethane	ND	10		ND	10	
2-Butanone	ND	10		ND	10	
n-Butylbenzene	ND	5		ND	5	
sec-Butylbenzene	ND	5		ND	5	
tert-Butylbenzene	ND	5		ND	5	
Carbon disulfide	ND	5		ND	5	
Carbon tetrachloride	ND	5		ND	5	
Chlorobenzene	ND	5		ND	5	
Chloroethane	ND	10		ND	10	
2-Chloroethyl vinyl ether	ND	10		ND	10	
Chloroform	ND	5		ND	5	
Chloromethane	ND	10		ND	10	
2-Chlorotoluene	ND	5		ND	5	
4-Chlorotoluene	ND	5		ND	5	
Dibromochloromethane	ND	5		ND	5	
1,2-Dibromo-3-chloropropane	ND	5		ND	5	
1,2-Dibromoethane	ND	5		ND	5	
Dibromomethane	ND	5		ND	5	
1,2-Dichlorobenzene	ND	5		ND	5	
1,3-Dichlorobenzene	ND	5		ND	5	
1,4-Dichlorobenzene	ND	5		ND	5	
Dichlorodifluoromethane	ND	10		ND	10	
1,1-Dichloroethane	ND	5		ND	5	
1,2-Dichloroethane	ND	5		ND	5	
1,1-Dichloroethene	53	5		ND	5	
cis-1,2-Dichloroethene	ND	5		ND	5	
trans-1,2-Dichloroethene	ND	5		ND	5	
1,2-Dichloropropane	ND	5		ND	5	
1,3-Dichloropropane	ND	5		ND	5	
2,2-Dichloropropane	ND	5		ND	5	
1,1-Dichloropropene	ND	5		ND	5	
cis-1,3-Dichloropropene	ND	5		ND	5	
trans-1,3-Dichloropropene	ND	5		ND	5	
Ethylbenzene	ND	5		ND	5	
Freon 113	ND	5		ND	5	
Hexachlorobutadiene	ND	5		ND	5	
2-Hexanone	ND	10		ND	10	
Isopropylbenzene	ND	5		ND	5	
p-Isopropyltoluene	ND	5		ND	5	
Methylene chloride	ND	5		ND	5	
4-Methyl-2-pentanone	ND	10		ND	10	
Naphthalene	ND	5		ND	5	
n-Propylbenzene	ND	5		ND	5	

(continued on next page)

Date Sampled:	3/04/96	Method Blank
Date Analyzed:	3/06/96	3/06/96

VOLATILE ORGANICS



Client I.D.: WCC3D-14
 Laboratory I.D.: 213865-003
 Client: KENNEDY/JENKS

Matrix: Liquid
 Method: EPA 8260
 Extraction: EPA 5030 Purge & Trap

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(continued from previous page)

Compound	Result (ug/L)	Detection Limit	Analytical Notes	Method Blank	Detection Limit	Analytical Notes
Styrene	ND	5		ND	5	
1,1,1,2-Tetrachloroethane	ND	5		ND	5	
1,1,2,2-Tetrachloroethane	ND	5		ND	5	
Tetrachloroethylene	ND	5		ND	5	
Toluene	6	5		ND	5	-
1,2,3-Trichlorobenzene	ND	5		ND	5	
1,2,4-Trichlorobenzene	ND	5		ND	5	
1,1,1-Trichloroethane	40	5		ND	5	
1,1,2-Trichloroethane	ND	5		ND	5	
Trichloroethylene	23	5		ND	5	
Trichlorofluoromethane	ND	5		ND	5	
1,2,3-Trichloropropane	ND	5		ND	5	
1,2,4-Trimethylbenzene	ND	5		ND	5	
1,3,5-Trimethylbenzene	ND	5		ND	5	
Vinyl acetate	ND	10		ND	10	
Vinyl chloride	ND	10		ND	10	
n,p-Xylenes	ND	5		ND	5	
o-Xylene	ND	5		ND	5	

Quality Control Data Summary

Surrogate Recovery Data				Laboratory Control Sample, Matrix Spike/Matrix Spike Duplicate Data								
Compound	Spike Amount (ug/L)	Percent Recovery	QC Limits	Batch I.D.: 10872DC6		Sample I.D.: 213865-003						
	Compounds	Spike Amt.	LCS %Rec.	QC Limits	Spike %Rec.	Spk Dup %Rec.	QC Limits	RPD	QC Limits			
Toluene-d8	50	97	88-110	1,1-Dichloroethylene	25	89	80-120	88	90	61-145	2	14
Bromofluorobenzene	50	90	86-115	Benzene	25	105	80-120	104	105	76-127	1	11
Dibromofluoromethane	50	108	76-114	Trichloroethylene	25	112	80-120	104	100	71-120	4	14
				Toluene	25	110	80-120	108	105	76-125	3	13
				Chlorobenzene	25	111	80-120	110	111	75-130	1	13

APPENDIX B

LABORATORY/FIELD QUALITY CONTROL

DATA SHEETS

DLATILE ORGANICS

nt I.D.: DW-022996
oratory I.D.: 213841-004
nt: KENNEDY/JENKS

Matrix: Liquid
Method: EPA 8260
Extraction: EPA 5030 Purge & Trap

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VOLATILE ORGANICS



Client I.D.: DW-022996
 Laboratory I.D.: 213841-004
 Client: KENNEDY/JENKS

Matrix: Liquid
 Method: EPA 8260
 Extraction: EPA 5030 Purge & Trap

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Compound	Result (ug/L)	Detection Limit	Analytical Notes	Method Blank	Detection Limit	Analytical Notes
Styrene	ND	5		ND	5	
,1,1,2-Tetrachloroethane	ND	5		ND	5	
,1,2,2-Tetrachloroethane	ND	5		ND	5	
Tetrachloroethene	ND	5		ND	5	
Toluene	ND	5		ND	5	
,2,3-Trichlorobenzene	ND	5		ND	5	
,2,4-Trichlorobenzene	ND	5		ND	5	
,1,1-Trichloroethane	ND	5		ND	5	
,1,2-Trichloroethane	ND	5		ND	5	
Trichloroethene	ND	5		ND	5	
Trichlorofluoromethane	ND	5		ND	5	
,2,3-Trichloropropane	ND	5		ND	5	
,2,4-Trimethylbenzene	ND	5		ND	5	
,3,5-Trimethylbenzene	ND	5		ND	5	
/nyl acetate	ND	10		ND	10	
/nyl chloride	ND	10		ND	10	
n,p-Xylenes	ND	5		ND	5	
m-Xylene	ND	5		ND	5	

Quality Control Data Summary

Surrogate Recovery Data				Laboratory Control Sample, Matrix Spike/Matrix Spike Duplicate Data									
Compound	Spike Amount (ug/L)	Percent Recovery	QC Limits	Batch I.D.: 10813DC5		Sample I.D.: 213813-007							
				Compounds	Spike Amt.	LCS %Rec.	QC Limits	Spike %Rec.	Spk Dup %Rec.	QC Limits	RPD	QC Limits	
Toluene-d8	50	97	88-110	1,1-Dichloroethene	25	83	80-120	95	85	61-145	11	14	
Bromofluorobenzene	50	90	86-115	Benzene	25	102	80-120	106	98	76-127	8	11	
Dibromofluoromethane	50	104	76-114	Trichloroethene	25	111	80-120	113	101	71-120	11	14	
				Toluene	25	102	80-120	114	104	76-125	9	13	
				Chlorobenzene	25	104	80-120	113	107	75-130	5	13	

DILATILE ORGANICS

nt I.D.: EB-022996
oratory I.D.: 213841-005
nt: KENNEDY/JENKS

Matrix: Liquid
Method: EPA 8260
Extraction: EPA 5030 Purge & Trap

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VOLATILE ORGANICS



Client I.D.: EB-022996
 Laboratory I.D.: 213841-005
 Client: KENNEDY/JENKS

Matrix: Liquid
 Method: EPA 8260
 Extraction: EPA 5030 Purge & Trap

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Compound	Result (ug/L)	Detection Limit	Analytical Notes	Method Blank	Detection Limit	Analytical Notes
Styrene	ND	5		ND	5	
,1,1,2-Tetrachloroethane	ND	5		ND	5	
,1,2,2-Tetrachloroethane	ND	5		ND	5	
Tetrachloroethene	ND	5		ND	5	
Toluene	ND	5		ND	5	
,2,3-Trichlorobenzene	ND	5		ND	5	
,2,4-Trichlorobenzene	ND	5		ND	5	
,1,1-Trichloroethane	ND	5		ND	5	
,1,2-Trichloroethane	ND	5		ND	5	
Trichloroethene	ND	5		ND	5	
Trichlorofluoromethane	ND	5		ND	5	
,2,3-Trichloropropane	ND	5		ND	5	
,2,4-Trimethylbenzene	ND	5		ND	5	
,3,5-Trimethylbenzene	ND	5		ND	5	
Methyl acetate	ND	10		ND	10	
Methyl chloride	ND	10		ND	10	
,m,p-Xylenes	ND	5		ND	5	
-Xylene	ND	5		ND	5	

Quality Control Data Summary

Surrogate Recovery Data				Laboratory Control Sample, Matrix Spike/Matrix Spike Duplicate Data									
Compound	Spike Amount (ug/L)	Percent Recovery	QC Limits	Batch I.D.: 10813DC5				Sample I.D.: 213813-007					
				Compounds	Spike Amt.	LCS %Rec.	QC Limits	Spike %Rec.	Spk Dup %Rec.	QC Limits	RPD	QC Limits	
Toluene-d8	50	100	88-110	1,1-Dichloroethene	25	83	80-120	95	85	61-145	11	14	
Bromofluorobenzene	50	94	86-115	Benzene	25	102	80-120	106	98	76-127	8	11	
Dibromofluoromethane	50	102	76-114	Trichloroethene	25	111	80-120	113	101	71-120	11	14	
				Toluene	25	102	80-120	114	104	76-125	9	13	
				Chlorobenzene	25	104	80-120	113	107	75-130	5	13	

OLATILE ORGANICS

ent I.D.: TRIP BLANK
oratory I.D.: 213841-006
ent: KENNEDY/JENKS

Matrix: Liquid
Method: EPA 8260
Extraction: EPA 5030 Purge & Trap

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Compound	Result (ug/L)	Detection Limit	Analytical Notes	Method Blank	Detection Limit	Analytical Notes	
etone	ND	10		ND	10		
nzene	ND	5		ND	5		
romobenzene	ND	5		ND	5		
romochloromethane	ND	5		ND	5		
romodichloromethane	ND	5		ND	5		
romoform	ND	5		ND	5		
romomethane	ND	10		ND	10		
3Butanone	ND	10		ND	10		
3Butylbenzene	ND	5		ND	5		
c-Butylbenzene	ND	5		ND	5		
t-Butylbenzene	ND	5		ND	5		
rbon disulfide	ND	5		ND	5		
rbon tetrachloride	ND	5		ND	5		
lorobenzene	ND	5		ND	5		
loroethane	ND	10		ND	10		
Chloroethyl vinyl ether	ND	10		ND	10		
loroform	ND	5		ND	5		
loromethane	ND	10		ND	10		
Chlorotoluene	ND	5		ND	5		
Chlorotoluene	ND	5		ND	5		
romochloromethane	ND	5		ND	5		
2-Dibromo-3-chloropropane	ND	5		ND	5		
2-Dibromoethane	ND	5		ND	5		
romomethane	ND	5		ND	5		
2-Dichlorobenzene	ND	5		ND	5		
3-Dichlorobenzene	ND	5		ND	5		
4-Dichlorobenzene	ND	5		ND	5		
chlorodifluoromethane	ND	10		ND	10		
1-Dichloroethane	ND	5		ND	5		
2-Dichloroethane	ND	5		ND	5		
1-Dichloroethene	ND	5		ND	5		
s-1,2-Dichloroethene	ND	5		ND	5		
ns-1,2-Dichloroethene	ND	5		ND	5		
2-Dichloropropane	ND	5		ND	5		
3-Dichloropropane	ND	5		ND	5		
2-Dichloropropane	ND	5		ND	5		
1-Dichloropropene	ND	5		ND	5		
s-1,3-Dichloropropene	ND	5		ND	5		
ns-1,3-Dichloropropene	ND	5		ND	5		
hylenes	ND	5		ND	5		
eon 113	ND	5		ND	5		
exachlorobutadiene	ND	5		ND	5		
Hexanone	ND	10		ND	10	Sample	Method Blank
opropylbenzene	ND	5		ND	5	Date Sampled:	2/29/96 N/A
Isopropyltoluene	ND	5		ND	5	Date Analyzed:	3/05/96 3/05/96
ethylene chloride	ND	5		ND	5		
Methyl-2-pentanone	ND	10		ND	10		
aphthalene	ND	5		ND	5		
Propylbenzene	ND	5		ND	5		

(continued on next page)

OLATILE ORGANICS

Sample I.D.: TRIP BLANK
Laboratory I.D.: 213841-006
Analyst: KENNEDY/JENKS

Matrix: Liquid
Method: EPA 8260
Extraction: EPA 5030 Purge & Trap

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(continued from previous page)

Compound	Result (ug/L)	Detection Limit	Analytical Notes	Method Blank	Detection Limit	Analytical Notes
Toluene	ND	5		ND	5	
1,1,2-Tetrachloroethane	ND	5		ND	5	
1,2,2-Tetrachloroethane	ND	5		ND	5	
Trichloroethene	ND	5		ND	5	
luene	ND	5		ND	5	
1,3-Trichlorobenzene	ND	5		ND	5	
1,4-Trichlorobenzene	ND	5		ND	5	
1,1-Trichloroethane	ND	5		ND	5	
1,2-Trichloroethane	ND	5		ND	5	
chloroethene	ND	5		ND	5	
chlorofluoromethane	ND	5		ND	5	
2,3-Trichloropropane	ND	5		ND	5	
2,4-Trimethylbenzene	ND	5		ND	5	
3,5-Trimethylbenzene	ND	5		ND	5	
γ-acetate	ND	10		ND	10	
γ-chloride	ND	10		ND	10	
p-Xylenes	ND	5		ND	5	
Xylene	ND	5		ND	5	

Quality Control Data Summary

Surrogate Recovery Data				Laboratory Control Sample, Matrix Spike/Matrix Spike Duplicate Data								
Compound	Spike Amount (ug/L)	Percent Recovery	QC Limits	Batch I.D.: 10813DC5			Sample I.D.: 213813-007					
				Compounds	Spike Amt.	LCS %Rec.	QC Limits	Spike %Rec.	Spk Dup %Rec.	QC Limits	RPD	QC Limits
Toluene-d8	50	98	88-110	1,1-Dichloroethene	25	83	80-120	95	85	61-145	11	14
Bromofluorobenzene	50	92	86-115	Benzene	25	102	80-120	106	98	76-127	8	11
Dibromofluoromethane	50	104	76-114	Trichloroethene	25	111	80-120	113	101	71-120	11	14
				Toluene	25	102	80-120	114	104	76-125	9	13
				Chlorobenzene	25	104	80-120	113	107	75-130	5	13



OLATILE ORGANICS

ent I.D.: DW-030196
boratory I.D.: 213838-008
ent: KENNEDY/JENKS

Matrix: Liquid
Method: EPA 8260
Extraction: EPA 5030 Purge & Trap

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Compound	Result (ug/L)	Detection Limit	Analytical Notes	Method Blank	Detection Limit	Analytical Notes
etone	ND	40	b	ND	10	b - Raised detection limit due to sample interference.
nzene	ND	20	b	ND	5	c - Result from a 1:4 dilution.
omobenzene	ND	20	b	ND	5	d - Result from a 1:20 dilution.
omochloromethane	ND	20	b	ND	5	
omodichloromethane	ND	20	b	ND	5	
omoform	ND	20	b	ND	5	
omomethane	ND	40	b	ND	10	
Butanone	ND	40	b	ND	10	
Butylbenzene	ND	20	b	ND	5	
c-Butylbenzene	ND	20	b	ND	5	
t-Butylbenzene	ND	20	b	ND	5	
arbon disulfide	ND	20	b	ND	5	
arbon tetrachloride	ND	20	b	ND	5	
lorobenzene	ND	20	b	ND	5	
loroethane	ND	40	b	ND	10	
Chloroethyl vinyl ether	ND	40	b	ND	10	
loroform	ND	20	b	ND	5	
loromethane	ND	40	b	ND	10	
Chlorotoluene	ND	20	b	ND	5	
Chlorotoluene	ND	20	b	ND	5	
bromochloromethane	ND	20	b	ND	5	
2-Dibromo-3-chloropropane	ND	20	b	ND	5	
2-Dibromoethane	ND	20	b	ND	5	
bromomethane	ND	20	b	ND	5	
2-Dichlorobenzene	ND	20	b	ND	5	
3-Dichlorobenzene	ND	20	b	ND	5	
4-Dichlorobenzene	ND	20	b	ND	5	
chlorodifluoromethane	ND	40	b	ND	10	
1-Dichloroethane	ND	20	b	ND	5	
2-Dichloroethane	ND	20	b	ND	5	
1-Dichloroethene	3600	100	b,d	ND	5	
is-1,2-Dichloroethene	ND	20	b	ND	5	
ans-1,2-Dichloroethene	41	20	b,c	ND	5	
,2-Dichloropropane	ND	20	b	ND	5	
,3-Dichloropropane	ND	20	b	ND	5	
,2-Dichloropropane	ND	20	b	ND	5	
,1-Dichloropropene	ND	20	b	ND	5	
is-1,3-Dichloropropene	ND	20	b	ND	5	
ans-1,3-Dichloropropene	ND	20	b	ND	5	
ethylbenzene	ND	20	b	ND	5	
reon 113	ND	20	b	ND	5	
hexachlorobutadiene	ND	20	b	ND	5	
-Hexanone	ND	40	b	ND	10	
opropylbenzene	ND	20	b	ND	5	
-Isopropyltoluene	ND	20	b	ND	5	
ethylene chloride	ND	20	b	ND	5	
-Methyl-2-pentanone	ND	40	b	ND	10	
Naphthalene	ND	20	b	ND	5	
-Propylbenzene	ND	20	b	ND	5	

(continued on next page)

	Sample	Method Blank
Date Sampled:	3/01/96	N/A
Date Analyzed:	3/07/96	3/07/96

OLATILE ORGANICS

Sample I.D.: DW-030196
 Laboratory I.D.: 213838-008
 Analyst: KENNEDY/JENKS

Matrix: Liquid
 Method: EPA 8260
 Extraction: EPA 5030 Purge & Trap

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(continued from previous page)

Compound	Result (ug/L)	Detection Limit	Analytical Notes	Method Blank	Detection Limit	Analytical Notes
rene	ND	20	b	ND	5	a - MS recovery out of control due to confirmed matrix effect. LCS, MSD and RPD are within acceptance limits.
,1,2-Tetrachloroethane	ND	20	b	ND	5	
,2,2-Tetrachloroethane	ND	20	b	ND	5	
trachloroethene	ND	20	b	ND	5	
uene	ND	20	b	ND	5	b - Raised detection limit due to sample interference.
,3-Trichlorobenzene	ND	20	b	ND	5	
,4-Trichlorobenzene	ND	20	b	ND	5	c - Result from a 1:4 dilution.
,1-Trichloroethane	120	20	b,c	ND	5	
,2-Trichloroethane	ND	20	b	ND	5	d - Result from a 1:20 dilution.
chloroethene	2200	100	b,d	ND	5	
chlorofluoromethane	ND	20	b	ND	5	
,3-Trichloroproppane	ND	20	b	ND	5	
,4-Trimethylbenzene	ND	20	b	ND	5	
,5-Trimethylbenzene	ND	20	b	ND	5	
yl acetate	ND	40	b	ND	10	
yl chloride	ND	40	b	ND	10	
p-Xylenes	ND	20	b	ND	5	
xylene	ND	20	b	ND	5	

Quality Control Data Summary

Surrogate Recovery Data				Laboratory Control Sample, Matrix Spike/Matrix Spike Duplicate Data								
Compound	Spike Amount (ug/L)	Percent Recovery	QC Limits	Batch I.D.: 10814DC7		Sample I.D.: 213813-004						
	Compounds	Spike Amt. (ug/L)	LCS %Rec.	QC Limits	Spike %Rec.	Spk Dup %Rec.	QC Limits	RPD	QC Limits			
oluene-d8	50	98	88-110	1,1-Dichloroethene	25	91	80-120	93	88	61-145	6	14
romofluorobenzene	50	92	86-115	Benzene	25	105	80-120	113	107	76-127	5	11
ibromofluoromethane	50	107	76-114	Trichloroethene	25	110	80-120	a	115	71-120	6	14
				Toluene	25	109	80-120	111	103	76-125	7	13
				Chlorobenzene	25	106	80-120	116	111	75-130	4	13

OLATILE ORGANICS

Sample I.D.: TRAVEL BLANK
Laboratory I.D.: 213838-009
Analyst: KENNEDY/JENKS

Matrix: Liquid
Method: EPA 8260
Extraction: EPA 5030 Purge & Trap

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Compound	Result (ug/L)	Detection Limit	Analytical Notes	Method Blank	Detection Limit	Analytical Notes
Acetone	ND	10		ND	10	
Azene	ND	5		ND	5	
o-mobenzene	ND	5		ND	5	
o-chloromethane	ND	5		ND	5	
o-dichloromethane	ND	5		ND	5	
o-form	ND	5		ND	5	
o-methane	ND	10		ND	10	
Butanone	ND	10		ND	10	
Butylbenzene	ND	5		ND	5	
c-Butylbenzene	ND	5		ND	5	
t-Butylbenzene	ND	5		ND	5	
Carbon disulfide	ND	5		ND	5	
Carbon tetrachloride	ND	5		ND	5	
Chlorobenzene	ND	5		ND	5	
Chloroethane	ND	10		ND	10	
Chloroethyl vinyl ether	ND	10		ND	10	
Chloroform	ND	5		ND	5	
Chloromethane	ND	10		ND	10	
Chlorotoluene	ND	5		ND	5	
Chlorotoluene	ND	5		ND	5	
bromochloromethane	ND	5		ND	5	
2-Dibromo-3-chloropropane	ND	5		ND	5	
2-Dibromoethane	ND	5		ND	5	
bromomethane	ND	5		ND	5	
2-Dichlorobenzene	ND	5		ND	5	
3-Dichlorobenzene	ND	5		ND	5	
4-Dichlorobenzene	ND	5		ND	5	
chlorodifluoromethane	ND	10		ND	10	
1-Dichloroethane	ND	5		ND	5	
2-Dichloroethane	ND	5		ND	5	
1-Dichloroethene	ND	5		ND	5	
s-1,2-Dichloroethene	ND	5		ND	5	
ans-1,2-Dichloroethene	ND	5		ND	5	
2-Dichloropropene	ND	5		ND	5	
3-Dichloropropene	ND	5		ND	5	
2-Dichloropropene	ND	5		ND	5	
1-Dichloropropene	ND	5		ND	5	
is-1,3-Dichloropropene	ND	5		ND	5	
ans-1,3-Dichloropropene	ND	5		ND	5	
Phenylbenzene	ND	5		ND	5	
neon 113	ND	5		ND	5	
hexachlorobutadiene	ND	5		ND	5	
-Hexanone	ND	10		ND	10	
Isopropylbenzene	ND	5		ND	5	
-Isopropyltoluene	ND	5		ND	5	
Methylene chloride	ND	5		ND	5	
-Methyl-2-pentanone	ND	10		ND	10	
Phthalene	ND	5		ND	5	
Propylbenzene	ND	5		ND	5	

(continued on next page)

Sample	Method Blank	
Date Sampled:	3/01/96	N/A
Date Analyzed:	3/05/96	3/05/96



/OLATILE ORGANICS

Client I.D.: TRAVEL BLANK

Matrix: Liquid

Laboratory I.D.: 213838-009

Method: EPA 8260

Client: KENNEDY/JENKS

Extraction: EPA 5030 Purge & Trap

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(continued from previous page)

Compound	Result (ug/L)	Detection Limit	Analytical Notes	Method Blank	Detection Limit	Analytical Notes
styrene	ND	5		ND	5	a - MS recovery out of control due to confirmed matrix effect. LCS, MSD and RPD are within acceptance limits.
1,1,2-Tetrachloroethane	ND	5		ND	5	
1,2,2-Tetrachloroethane	ND	5		ND	5	
1,2,3-Tetrachloroethene	ND	5		ND	5	
benzene	ND	5		ND	5	
2,3-Trichlorobenzene	ND	5		ND	5	
2,4-Trichlorobenzene	ND	5		ND	5	
1,1-Trichloroethane	ND	5		ND	5	
1,2-Trichloroethane	ND	5		ND	5	
1,1,1-Trichloroethene	ND	5		ND	5	
1,1,1-Trichlorofluoromethane	ND	5		ND	5	
2,3-Trichloropropane	ND	5		ND	5	
2,4-Trimethylbenzene	ND	5		ND	5	
3,5-Trimethylbenzene	ND	5		ND	5	
propyl acetate	ND	10		ND	10	
propyl chloride	ND	10		ND	10	
p-Xylenes	ND	5		ND	5	
Xylene	ND	5		ND	5	

Quality Control Data Summary

Surrogate Recovery Data				Laboratory Control Sample, Matrix Spike/Matrix Spike Duplicate Data									
Compound	Spike Amount (ug/L)	Percent Recovery	QC Limits	Batch I.D.: 10814DC5		Sample I.D.: 213813-004							
				Compounds	Spike Amt. (ug/L)	LCS %Rec.	QC Limits	Spike %Rec.	Spk Dup %Rec.	QC Limits	RPD	QC Limits	
benzene-d8	50	96	88-110	1,1-Dichloroethene	25	83	80-120	93	88	61-145	6	14	
chloromfluorobenzene	50	90	86-115	Benzene	25	102	80-120	113	107	76-127	5	11	
bromofluoromethane	50	104	76-114	Trichloroethene	25	111	80-120	a	115	71-120	6	14	
				Toluene	25	102	80-120	111	103	76-125	7	13	
				Chlorobenzene	25	104	80-120	116	111	75-130	4	13	

/OLATILE ORGANICS

lient I.D.: EB-030196
aboratory I.D.: 213838-006
lient: KENNEDY/JENKS

Matrix: Liquid
Method: EPA 8260
Extraction: EPA 5030 Purge & Trap

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Compound	Result (ug/L)	Detection Limit	Analytical Notes	Method Blank	Detection Limit	Analytical Notes
cetone	ND	10		ND	10	
enzene	ND	5		ND	5	
romobenzene	ND	5		ND	5	
romochloromethane	ND	5		ND	5	
romodichloromethane	8	5		ND	5	
romoform	ND	5		ND	5	
romomethane	ND	10		ND	10	
-Butanone	ND	10		ND	10	
-Butylbenzene	ND	5		ND	5	
- <i>ec</i> -Butylbenzene	ND	5		ND	5	
- <i>rt</i> -Butylbenzene	ND	5		ND	5	
arbon disulfide	ND	5		ND	5	
arbon tetrachloride	ND	5		ND	5	
hlorobenzene	ND	5		ND	5	
hloroethane	ND	10		ND	10	
-Chloroethyl vinyl ether	ND	10		ND	10	
hloroform	10	5		ND	5	
hloromethane	ND	10		ND	10	
-Chlorotoluene	ND	5		ND	5	
-Chlorotoluene	ND	5		ND	5	
ibromochloromethane	ND	5		ND	5	
2-Dibromo-3-chloropropane	ND	5		ND	5	
2-Dibromoethane	ND	5		ND	5	
ibromomethane	ND	5		ND	5	
2-Dichlorobenzene	ND	5		ND	5	
3-Dichlorobenzene	ND	5		ND	5	
4-Dichlorobenzene	ND	5		ND	5	
ichlorodifluoromethane	ND	10		ND	10	
,1-Dichloroethane	ND	5		ND	5	
,2-Dichloroethane	ND	5		ND	5	
,1-Dichloroethene	ND	5		ND	5	
-s-1,2-Dichloroethene	ND	5		ND	5	
ans-1,2-Dichloroethene	ND	5		ND	5	
,2-Dichloropropane	ND	5		ND	5	
,3-Dichloropropane	ND	5		ND	5	
,2-Dichloropropane	ND	5		ND	5	
,1-Dichloropropene	ND	5		ND	5	
s-1,3-Dichloropropene	ND	5		ND	5	
ans-1,3-Dichloropropene	ND	5		ND	5	
thylbenzene	ND	5		ND	5	
reon 113	ND	5		ND	5	
exachlorobutadiene	ND	5		ND	5	
-Hexanone	ND	10		ND	10	
opropylbenzene	ND	5		ND	5	
-Isopropyltoluene	ND	5		ND	5	Date Sampled: 3/01/96 N/A
ethylene chloride	ND	5		ND	5	Date Analyzed: 3/05/96 3/05/96
-Methyl-2-pentanone	ND	10		ND	10	
aphthalene	ND	5		ND	5	
-Propylbenzene	ND	5		ND	5	

(continued on next page)



OLATILE ORGANICS

ent I.D.: EB-030196
boratory I.D.: 213838-006
ent: KENNEDY/JENKS

Matrix: Liquid
Method: EPA 8260
Extraction: EPA 5030 Purge & Trap

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(continued from previous page)

Compound	Result (ug/L)	Detection Limit	Analytical Notes	Method Blank	Detection Limit	Analytical Notes
rene	ND	5		ND	5	a - MS recovery out of control due to confirmed matrix effect. LCS, MSD and RPD are within acceptance limits.
1,1,2-Tetrachloroethane	ND	5		ND	5	
1,2,2-Tetrachloroethane	ND	5		ND	5	
trachloroethene	ND	5		ND	5	
luene	ND	5		ND	5	
2,3-Trichlorobenzene	ND	5		ND	5	
2,4-Trichlorobenzene	ND	5		ND	5	
1,1-Trichloroethane	ND	5		ND	5	
1,2-Trichloroethane	ND	5		ND	5	
ichloroethene	ND	5		ND	5	
ichlorofluoromethane	ND	5		ND	5	
2,3-Trichloropropane	ND	5		ND	5	
2,4-Trimethylbenzene	ND	5		ND	5	
3,5-Trimethylbenzene	ND	5		ND	5	
nyl acetate	ND	10		ND	10	
nyl chloride	ND	10		ND	10	
p-Xylenes	ND	5		ND	5	
Xylene	ND	5		ND	5	

Quality Control Data Summary

Surrogate Recovery Data				Laboratory Control Sample, Matrix Spike/Matrix Spike Duplicate Data									
ompound	Spike Amount (ug/L)	Percent Recovery	QC Limits	Batch I.D.: 10814DC5		Sample I.D.: 213813-004							
	Compounds	Spike Amt. (ug/L)	LCS %Rec.	QC Limits	Spike %Rec.	Spk Dup %Rec.	QC Limits	RPD	QC Limits				
oluene-d8	50	98	88-110	1,1-Dichloroethene	25	83	80-120	93	88	61-145	6	14	
romofluorobenzene	50	91	86-115	Benzene	25	102	80-120	a	107	76-127	5	11	
bromofluoromethane	50	105	76-114	Trichloroethene	25	111	80-120	a	115	71-120	6	14	
				Toluene	25	102	80-120	111	103	76-125	7	13	
				Chlorobenzene	25	104	80-120	116	111	75-130	4	13	



VOLATILE ORGANICS

Client I.D.: EB-030496

Matrix: Liquid

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Laboratory I.D.: 213865-006

Method: EPA 8260

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Client: KENNEDY/JENKS

Extraction: EPA 5030 Purge & Trap

Compound	Result (ug/L)	Detection Limit	Analytical Notes	Method Blank	Detection Limit	Analytical Notes
Acetone	ND	10		ND	10	
Benzene	ND	5		ND	5	
Bromobenzene	ND	5		ND	5	
Bromochloromethane	ND	5		ND	5	
Bromodichloromethane	ND	5		ND	5	
Bromoform	ND	5		ND	5	
Bromomethane	ND	10		ND	10	
2-Butanone	ND	10		ND	10	
γ-Butylbenzene	ND	5		ND	5	
sec-Butylbenzene	ND	5		ND	5	
tert-Butylbenzene	ND	5		ND	5	
Carbon disulfide	ND	5		ND	5	
Carbon tetrachloride	ND	5		ND	5	
Chlorobenzene	ND	5		ND	5	
Chloroethane	ND	10		ND	10	
2-Chloroethyl vinyl ether	ND	10		ND	10	
Chloroform	ND	5		ND	5	
Chloromethane	ND	10		ND	10	
2-Chlorotoluene	ND	5		ND	5	
4-Chlorotoluene	ND	5		ND	5	
Dibromochloromethane	ND	5		ND	5	
1,2-Dibromo-3-chloropropane	ND	5		ND	5	
1,2-Dibromoethane	ND	5		ND	5	
Dibromomethane	ND	5		ND	5	
1,2-Dichlorobenzene	ND	5		ND	5	
1,3-Dichlorobenzene	ND	5		ND	5	
1,4-Dichlorobenzene	ND	5		ND	5	
Dichlorodifluoromethane	ND	10		ND	10	
1,1-Dichloroethane	ND	5		ND	5	
1,2-Dichloroethane	ND	5		ND	5	
1,1-Dichloroethene	ND	5		ND	5	
cis-1,2-Dichloroethene	ND	5		ND	5	
trans-1,2-Dichloroethene	ND	5		ND	5	
1,2-Dichloropropane	ND	5		ND	5	
1,3-Dichloropropane	ND	5		ND	5	
2,2-Dichloropropane	ND	5		ND	5	
1,1-Dichloropropene	ND	5		ND	5	
cis-1,3-Dichloropropene	ND	5		ND	5	
trans-1,3-Dichloropropene	ND	5		ND	5	
Ethylbenzene	ND	5		ND	5	
Freon 113	ND	5		ND	5	
Hexachlorobutadiene	ND	5		ND	5	
2-Hexanone	ND	10		ND	10	
Isopropylbenzene	ND	5		ND	5	
o-Isopropyltoluene	ND	5		ND	5	
Methylene chloride	ND	5		ND	5	
4-Methyl-2-pentanone	ND	10		ND	10	
Naphthalene	ND	5		ND	5	
o-Propylbenzene	ND	5		ND	5	

(continued on next page)

Sample	Method Blank	
Date Sampled:	3/04/96	N/A
Date Analyzed:	3/06/96	3/06/96

VOLATILE ORGANICS



Client I.D.: EB-030496
 Laboratory I.D.: 213865-006
 Client: KENNEDY/JENKS

Matrix: Liquid
 Method: EPA 8260
 Extraction: EPA 5030 Purge & Trap

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Compound	Result (ug/L)	Detection Limit	Analytical Notes	Method Blank	Detection Limit	Analytical Notes
Styrene	ND	5		ND	5	
,1,1,2-Tetrachloroethane	ND	5		ND	5	
,1,2,2-Tetrachloroethane	ND	5		ND	5	
Tetrachloroethene	ND	5		ND	5	
Toluene	ND	5		ND	5	
,2,3-Trichlorobenzene	ND	5		ND	5	
,2,4-Trichlorobenzene	ND	5		ND	5	
,1,1-Trichloroethane	ND	5		ND	5	
,1,2-Trichloroethane	ND	5		ND	5	
Trichloroethene	ND	5		ND	5	
Trichlorofluoromethane	ND	5		ND	5	
,2,3-Trichloropropane	ND	5		ND	5	
,2,4-Trimethylbenzene	ND	5		ND	5	
,3,5-Trimethylbenzene	ND	5		ND	5	
/n-yl acetate	ND	10		ND	10	
/n-yl chloride	ND	10		ND	10	
n,p-Xylenes	ND	5		ND	5	
-Xylene	ND	5		ND	5	

Quality Control Data Summary

Compound	Surrogate Recovery Data			Laboratory Control Sample, Matrix Spike/Matrix Spike Duplicate Data								
	Spike Amount (ug/L)	Percent Recovery	QC Limits	Batch I.D.: 10872DC6			Sample I.D.: 213865-003					
				Compounds	Spike Amt.	LCS %Rec.	QC Limits	Spike %Rec.	Spk Dup %Rec.	QC	RPD	QC Limits
Toluene-d8	50	99	88-110	1,1-Dichloroethene	25	89	80-120	88	90	61-145	2	14
Bromofluorobenzene	50	91	86-115	Benzene	25	105	80-120	104	105	76-127	1	11
Dibromofluoromethane	50	106	76-114	Trichloroethene	25	112	80-120	104	100	71-120	4	14
				Toluene	25	110	80-120	108	105	76-125	3	13
				Chlorobenzene	25	111	80-120	110	111	75-130	1	13

VOLATILE ORGANICS



Client I.D.: DW-0304969
 Laboratory I.D.: 213865-008
 Client: KENNEDY/JENKS

Matrix: Liquid
 Method: EPA 8260
 Extraction: EPA 5030 Purge & Trap

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Compound	Result (ug/L)	Detection Limit	Analytical Notes	Method Blank	Detection Limit	Analytical Notes
Cetone	ND	200	a	ND	10	a - Raised detection limit due to sample interference.
Benzene	ND	100	a	ND	5	b - Result from a 1:20 dilution.
Bromobenzene	ND	100	a	ND	5	
Bromochloromethane	ND	100	a	ND	5	
Bromodichloromethane	ND	100	a	ND	5	
Bromoform	ND	100	a	ND	5	
Bromomethane	ND	200	a	ND	10	
-Butanone	ND	200	a	ND	10	
-Butylbenzene	ND	100	a	ND	5	
ec-Butylbenzene	ND	100	a	ND	5	
ert-Butylbenzene	ND	100	a	ND	5	
Carbon disulfide	ND	100	a	ND	5	
Carbon tetrachloride	ND	100	a	ND	5	
Chlorobenzene	ND	100	a	ND	5	
Chloroethane	ND	200	a	ND	10	
-Chloroethyl vinyl ether	ND	200	a	ND	10	
Chloroform	ND	100	a	ND	5	
Chloromethane	ND	200	a	ND	10	
-Chlorotoluene	ND	100	a	ND	5	
-Chlorotoluene	ND	100	a	ND	5	
Bibromochloromethane	ND	100	a	ND	5	
,2-Dibromo-3-chloropropane	ND	100	a	ND	5	
,2-Dibromoethane	ND	100	a	ND	5	
Bibromomethane	ND	100	a	ND	5	
,2-Dichlorobenzene	ND	100	a	ND	5	
,3-Dichlorobenzene	ND	100	a	ND	5	
,4-Dichlorobenzene	ND	100	a	ND	5	
Dichlorodifluoromethane	ND	200	a	ND	10	
,1-Dichloroethane	ND	100	a	ND	5	
,2-Dichloroethane	ND	100	a	ND	5	
,1-Dichloroethene	100	100	a,b	ND	5	
is-1,2-Dichloroethene	100	100	a,b	ND	5	
trans-1,2-Dichloroethene	ND	100	a	ND	5	
,2-Dichloropropane	ND	100	a	ND	5	
,3-Dichloropropane	ND	100	a	ND	5	
,2-Dichloropropane	ND	100	a	ND	5	
,1-Dichloropropene	ND	100	a	ND	5	
is-1,3-Dichloropropene	ND	100	a	ND	5	
trans-1,3-Dichloropropene	ND	100	a	ND	5	
Ethylbenzene	ND	100	a	ND	5	
Freon 113	ND	100	a	ND	5	
Hexachlorobutadiene	ND	100	a	ND	5	
,1-Hexanone	ND	200	a	ND	10	Sample
Sopropylbenzene	ND	100	a	ND	5	Method Blank
,1-Isopropyltoluene	ND	100	a	ND	5	Date Sampled: 3/04/96 N/A
Methylene chloride	ND	100	a	ND	5	Date Analyzed: 3/06/96 3/06/96
,1-Methyl-2-pentanone	ND	200	a	ND	10	
Naphthalene	ND	100	a	ND	5	
,1-Propylbenzene	ND	100	a	ND	5	

(continued on next page)

VOLATILE ORGANICS



Client I.D.: DW-0304969
 Laboratory I.D.: 213865-008
 Client: KENNEDY/JENKS

Matrix: Liquid
 Method: EPA 8260
 Extraction: EPA 5030 Purge & Trap

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(continued from previous page)

Compound	Result (ug/L)	Detection Limit	Analytical Notes	Method Blank	Detection Limit	Analytical Notes
Styrene	ND	100	a	ND	5	a - Raised detection limit due to sample interference.
1,1,1,2-Tetrachloroethane	ND	100	a	ND	5	
1,1,2,2-Tetrachloroethane	ND	100	a	ND	5	b - Result from a 1:20 dilution.
Tetrachloroethene	ND	100	a	ND	5	
Toluene	250	100	a,b	ND	5	c - Result from a 1:100 dilution.
1,2,3-Trichlorobenzene	ND	100	a	ND	5	
1,2,4-Trichlorobenzene	ND	100	a	ND	5	
1,1,1-Trichloroethane	ND	100	a	ND	5	
1,1,2-Trichloroethane	ND	100	a	ND	5	
Trichloroethene	16000	500	a,c	ND	5	
Trichlorofluoromethane	ND	100	a	ND	5	
1,2,3-Trichloropropane	ND	100	a	ND	5	
1,2,4-Trimethylbenzene	ND	100	a	ND	5	
1,3,5-Trimethylbenzene	ND	100	a	ND	5	
Vinyl acetate	ND	200	a	ND	10	
Vinyl chloride	ND	200	a	ND	10	
m,p-Xylenes	ND	100	a	ND	5	
o-Xylene	ND	100	a	ND	5	

Quality Control Data Summary

Surrogate Recovery Data				Laboratory Control Sample, Matrix Spike/Matrix Spike Duplicate Data									
Compound	Spike Amount (ug/L)	Percent Recovery	QC Limits	Batch I.D.: 10872DC6		Sample I.D.: 213865-003							
				Compounds	Spike Amt.	LCS %Rec.	QC Limits	Spike %Rec.	Spk Dup %Rec.	QC	RPD	QC Limits	
Toluene-d8	50	100	88-110	1,1-Dichloroethene	25	89	80-120	88	90	61-145	2	14	
Bromofluorobenzene	50	89	86-115	Benzene	25	105	80-120	104	105	76-127	1	11	
Dibromofluoromethane	50	108	76-114	Trichloroethene	25	112	80-120	104	100	71-120	4	14	
				Toluene	25	110	80-120	108	105	76-125	3	13	
				Chlorobenzene	25	111	80-120	110	111	75-130	1	13	

VOLATILE ORGANICS



Client I.D.: TRAVEL BLANK
 Laboratory I.D.: 213865-009
 Client: KENNEDY/JENKS

Matrix: Liquid
 Method: EPA 8260
 Extraction: EPA 5030 Purge & Trap

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Compound	Result (ug/L)	Detection Limit	Analytical Notes	Method Blank	Detection Limit	Analytical Notes
Acetone	ND	10		ND	10	
Benzene	ND	5		ND	5	
Bromobenzene	ND	5		ND	5	
Bromochloromethane	ND	5		ND	5	
Bromodichloromethane	ND	5		ND	5	
Bromoform	ND	5		ND	5	
Bromomethane	ND	10		ND	10	
-Butanone	ND	10		ND	10	
-Butylbenzene	ND	5		ND	5	
sec-Butylbenzene	ND	5		ND	5	
tert-Butylbenzene	ND	5		ND	5	
Carbon disulfide	ND	5		ND	5	
Carbon tetrachloride	ND	5		ND	5	
Chlorobenzene	ND	5		ND	5	
Chloroethane	ND	10		ND	10	
-Chloroethyl vinyl ether	ND	10		ND	10	
Chloroform	ND	5		ND	5	
Chloromethane	ND	10		ND	10	
-Chlorotoluene	ND	5		ND	5	
-Chlorotoluene	ND	5		ND	5	
Dibromochloromethane	ND	5		ND	5	
,2-Dibromo-3-chloropropane	ND	5		ND	5	
,2-Dibromoethane	ND	5		ND	5	
Dibromomethane	ND	5		ND	5	
,2-Dichlorobenzene	ND	5		ND	5	
,3-Dichlorobenzene	ND	5		ND	5	
,4-Dichlorobenzene	ND	5		ND	5	
Dichlorodifluoromethane	ND	10		ND	10	
,1-Dichloroethane	ND	5		ND	5	
,2-Dichloroethane	ND	5		ND	5	
,1-Dichloroethene	ND	5		ND	5	
is-1,2-Dichloroethene	ND	5		ND	5	
trans-1,2-Dichloroethene	ND	5		ND	5	
,2-Dichloropropane	ND	5		ND	5	
,3-Dichloropropane	ND	5		ND	5	
,2-Dichloropropane	ND	5		ND	5	
,1-Dichloropropene	ND	5		ND	5	
is-1,3-Dichloropropene	ND	5		ND	5	
trans-1,3-Dichloropropene	ND	5		ND	5	
Phenylbenzene	ND	5		ND	5	
Reon 113	ND	5		ND	5	
Tetrachlorobutadiene	ND	5		ND	5	
-Hexanone	ND	10		ND	10	Sample
Isopropylbenzene	ND	5		ND	5	Method Blank
-Isopropyltoluene	ND	5		ND	5	Date Sampled: 3/04/96 N/A
Ethylene chloride	ND	5		ND	5	Date Analyzed: 3/06/96 3/06/96
-Methyl-2-pentanone	ND	10		ND	10	
Phthalene	ND	5		ND	5	
-Propylbenzene	ND	5		ND	5	

(continued on next page)

VOLATILE ORGANICS



Client I.D.: TRAVEL BLANK
 Laboratory I.D.: 213865-009
 Client: KENNEDY/JENKS

Matrix: Liquid
 Method: EPA 8260
 Extraction: EPA 5030 Purge & Trap

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(continued from previous page)

Compound	Result (ug/L)	Detection Limit	Analytical Notes	Method Blank	Detection Limit	Analytical Notes
Styrene	ND	5		ND	5	
1,1,1,2-Tetrachloroethane	ND	5		ND	5	
1,1,2,2-Tetrachloroethane	ND	5		ND	5	
Tetrachloroethene	ND	5		ND	5	
Toluene	ND	5		ND	5	
1,2,3-Trichlorobenzene	ND	5		ND	5	
1,2,4-Trichlorobenzene	ND	5		ND	5	
1,1,1-Trichloroethane	ND	5		ND	5	
1,1,2-Trichloroethane	ND	5		ND	5	
Trichloroethene	ND	5		ND	5	
Trichlorofluoromethane	ND	5		ND	5	
1,2,3-Trichloropropane	ND	5		ND	5	
1,2,4-Trimethylbenzene	ND	5		ND	5	
1,3,5-Trimethylbenzene	ND	5		ND	5	
Vinyl acetate	ND	10		ND	10	
Vinyl chloride	ND	10		ND	10	
m,p-Xylenes	ND	5		ND	5	
o-Xylene	ND	5		ND	5	

Quality Control Data Summary

Surrogate Recovery Data				Laboratory Control Sample, Matrix Spike/Matrix Spike Duplicate Data								
Compound	Spike Amount (ug/L)	Percent Recovery	QC Limits	Batch I.D.: 10872DC6		Sample I.D.: 213865-003						
				Compounds	Spike Amt.	LCS %Rec.	QC Limits	Spike %Rec.	Spk Dup %Rec.	QC Limits	RPD	QC Limits
Toluene-d8	50	99	88-110	1,1-Dichloroethene	25	89	80-120	88	90	61-145	2	14
Bromofluorobenzene	50	90	86-115	Benzene	25	105	80-120	104	105	76-127	1	11
Dibromofluoromethane	50	103	76-114	Trichloroethene	25	112	80-120	104	100	71-120	4	14
				Toluene	25	110	80-120	108	105	76-125	3	13
				Chlorobenzene	25	111	80-120	110	111	75-130	1	13

APPENDIX C
GROUNDWATER PURGE AND SAMPLE FORMS

WATER LEVEL DATA SHEET

Job No. 944016.01

Facility DAC

Groundwater Purge and Sample Form

Date: 3/4/96

Kennedy/Jenks Consultants

PROJECT NAME: <u>DAC</u>	WELL NUMBER: <u>WCC-1S</u>
PROJECT NUMBER: <u>944016.01</u>	PERSONNEL: <u>Shane Scrimshire</u>
STATIC WATER LEVEL (FT): <u>66.50</u>	MEASURING POINT DESCRIPTION: <u>Top of Casing</u>
WATER LEVEL MEASUREMENT METHOD: <u>Elec. Probe</u>	PURGE METHOD: <u>Rad-Flow 2</u>
TIME START PURGE: <u>1113</u>	PURGE DEPTH (FT) <u>82'</u>
TIME END PURGE: <u>1125</u>	
TIME SAMPLED: <u>1130</u>	
COMMENTS: Slowed flow rate to approx. 500 ml/min for sample.	

WELL VOLUME CALCULATION (FILL IN BEFORE PURGING)	TOTAL DEPTH (FT)	DEPTH TO WATER (FT)	WATER COLUMN (FT)	MULTIPLIER FOR CASING DIAMETER (IN)			$\times 3 = 4.1$ CASING VOLUME (GAL)	
				X				
				2	4	6		
	<u>8340</u>	<u>66.50</u>	<u>16.90</u>				<u>2.70</u>	

TIME	<u>1115</u>	<u>1121</u>	<u>1125</u>				
VOLUME PURGED (GAL)	<u>2gal.</u>	<u>6gal.</u>	<u>8gal.</u>				
PURGE RATE (GPM)	<u>.5gpm</u>	<u>.5gpm</u>	<u>.5gpm</u>				
TEMPERATURE (°C)	<u>67.9</u>	<u>70.2</u>	<u>71.0</u>				
pH	<u>7.35</u>	<u>7.24</u>	<u>7.27</u>				
SPECIFIC CONDUCTIVITY (micromhos/cm) (uncorrected)	<u>1411.</u>	<u>1609.</u>	<u>1658</u>				
DISSOLVED OXYGEN (mg/L)							
eH(MV) Pt-AgCl ref.							
TURBIDITY/COLOR	<u>Brown, silty soil</u>	<u>Semi-clear lightly turbid</u>	<u>Clear</u>				
ODOR	<u>NO</u>	<u>NO</u>	<u>NO</u>				
DEPTH OF PURGE INTAKE (FT)	<u>82'</u>	<u>82'</u>	<u>82'</u>				
DEPTH TO WATER DURING PURGE (FT)	<u>69.35</u>	<u>69.10</u>	<u>69.10</u>				
NUMBER OF CASING VOLUMES REMOVED							
DEWATERED?							

PROJECT NAME: <u>DAC</u>	WELL NUMBER: <u>WCC-2 S</u>
PROJECT NUMBER: <u>944016.01</u>	PERSONNEL: <u>Shane Scrimshire</u>
STATIC WATER LEVEL (FT): <u>66.35</u>	MEASURING POINT DESCRIPTION: <u>Top of Casing</u>
WATER LEVEL MEASUREMENT METHOD: <u>Elec. Probe</u>	PURGE METHOD: <u>Redi-Flow 2</u>
TIME START PURGE: <u>936</u>	PURGE DEPTH (FT) <u>77'</u>
TIME END PURGE: <u>952</u>	
TIME SAMPLED: <u>955</u>	
COMMENTS:	

WELL VOLUME CALCULATION (FILL IN BEFORE PURGING)	TOTAL DEPTH (FT)	DEPTH TO WATER (FT)	WATER COLUMN (FT)	MULTIPLIER FOR CASING DIAMETER (IN)			$k_3 = 43 \text{ gal.}$ CASING VOLUME (GAL)
				2	4	6	
				0.16	0.64	1.44	
	<u>258.90</u>	<u>66.35</u>	<u>22.55</u>				<u>(4.43)</u>

TIME	938	941	946	948	952	
VOLUME PURGED (GAL)	5gal.	15gal.	25gal.	35gal.	45gal.	
PURGE RATE (GPM)	3gpm	3gpm	3gpm	3gpm	3gpm	
TEMPERATURE (°C)	70.4	71.3	71.2	71.5	70.9	
pH	8.19	7.78	7.71	7.65	7.66	
SPECIFIC CONDUCTIVITY (micromhos) (uncorrected) cm	677.	646.	609.	574.	563.	
DISSOLVED OXYGEN (mg/L)						
eH(MV)Pt-AgCl ref.						
TURBIDITY/COLOR	0. lightly turbid	Clear	Clear	Clear	Clear	
ODOR	No	No	No	No	No	
DEPTH OF PURGE INTAKE (FT)	77'	77'	77'	77'	77'	
DEPTH TO WATER DURING PURGE (FT)	67.50	67.60	67.65	67.70	67.70	
NUMBER OF CASING VOLUMES REMOVED						
DEWATERED?						

PROJECT NAME: <u>DAC</u>	WELL NUMBER: <u>WCC-3S</u>
PROJECT NUMBER: <u>944016.01</u>	PERSONNEL: <u>Shane Scrimshire</u>
STATIC WATER LEVEL (FT): <u>67.12</u>	MEASURING POINT DESCRIPTION: <u>TOP OF CASING</u>
WATER LEVEL MEASUREMENT METHOD: <u>Elec. Probe</u>	PURGE METHOD: <u>Redi-Flow 2</u>
TIME START PURGE: <u>1424</u>	PURGE DEPTH (FT) <u>77'</u>
TIME END PURGE: <u>1438</u>	
TIME SAMPLED: <u>1441</u>	
COMMENTS: <u>Heavy shear on purge water.</u>	

WELL VOLUME CALCULATION (FILL IN BEFORE PURGING)	TOTAL DEPTH (FT)	DEPTH TO WATER (FT)	WATER COLUMN (FT)	X	MULTIPLIER FOR CASING DIAMETER (IN)			$\times 3 = 41$ CASING VOLUME (GAL)
					2	4	6	
	<u>88.23</u>	<u>67.12</u>	<u>21.11</u>		0.16	0.64	1.44	<u>13.51</u>

TIME	<u>1426</u>	<u>1430</u>	<u>1436</u>	<u>1438</u>				
VOLUME PURGED (GAL)	<u>0 gal.</u>	<u>20 gal.</u>	<u>35 gal.</u>	<u>43 gal.</u>				
PURGE RATE (GPM)	<u>2.5 gpm</u>	<u>2.5 gpm</u>	<u>2.5 gpm</u>	<u>2.5 gpm</u>				
TEMPERATURE (°C)	<u>69.5</u>	<u>71.4</u>	<u>71.4</u>	<u>71.7</u>				
pH	<u>5.99</u>	<u>6.25</u>	<u>6.34</u>	<u>6.39</u>				
SPECIFIC CONDUCTIVITY (micromhos) (uncorrected) cm	<u>1473,</u>	<u>1307,</u>	<u>1183,</u>	<u>1163,</u>				
DISSOLVED OXYGEN (mg/L)								
eH(MV)Pt-AgCl ref.								
TURBIDITY/COLOR	<u>Clear</u>	<u>Clear</u>	<u>Clear</u>	<u>Clear</u>				
ODOR	<u>Strong HC odor</u>	<u>v. strong HC odor</u>						
DEPTH OF PURGE INTAKE (FT)	<u>77'</u>	<u>77'</u>	<u>77'</u>	<u>77'</u>				
DEPTH TO WATER DURING PURGE (FT)	<u>67.70</u>	<u>67.78</u>	<u>67.78</u>	<u>67.78</u>				
NUMBER OF CASING VOLUMES REMOVED								
DEWATERED?								

Groundwater Purge and Sample Form

Date: 3/4/96

Kennedy/Jenks Consultants

PROJECT NAME: DACWELL NUMBER: WCC-4SPROJECT NUMBER: 944016.01PERSONNEL: Shane ScrimshireSTATIC WATER LEVEL (FT): 66.71MEASURING POINT DESCRIPTION: Top of CasingWATER LEVEL MEASUREMENT METHOD: Elec. ProbePURGE METHOD: Pedi-Flow 2TIME START PURGE: 1008PURGE DEPTH (FT) 77'TIME END PURGE: 1028TIME SAMPLED: 1032COMMENTS: Slowed flow rate to approx. 500 ml/min for sample

WELL VOLUME CALCULATION (FILL IN BEFORE PURGING)	TOTAL DEPTH (FT)	DEPTH TO WATER (FT)	WATER COLUMN (FT)	MULTIPLIER FOR CASING DIAMETER (IN)			$\times 3 = 44\text{ gal.}$ CASING VOLUME (GAL)
				2	4	6	
				0.16	0.64	1.44	
	<u>89.70</u>	<u>66.71</u>	<u>22.99</u>				<u>14.71</u>

TIME	1012	1017	1022	1026	1028	
VOLUME PURGED (GAL)	5gal.	15gal.	30gal.	40gal.	45gal.	
PURGE RATE (GPM)	2gpm	2gpm	2gpm	2gpm	2gpm	
TEMPERATURE (°C)	68.7	71.1	71.3	71.3	71.8	
pH	7.06	7.41	7.42	7.42	7.41	
SPECIFIC CONDUCTIVITY (micromhos) (uncorrected) cm	1364.	1404.	1318.	1266.	1288.	
DISSOLVED OXYGEN (mg/L)						
eH(MV) Pt-AgCl ref.						
TURBIDITY/COLOR	Clear	Clear	Clear	Clear	Clear	
ODOR	No	No	No	No	No	
DEPTH OF PURGE INTAKE (FT)	77'	77'	77'	77'	77'	
DEPTH TO WATER DURING PURGE (FT)	66.30	66.27	66.32	66.34	66.35	
NUMBER OF CASING VOLUMES REMOVED						
DEWATERED?						

Groundwater Purge and Sample Form

Date: 2/29/96

Kennedy/Jenks Consultants

PROJECT NAME: <u>DAC</u>	WELL NUMBER: <u>WCC-55</u>
PROJECT NUMBER: <u>944016.01</u>	PERSONNEL: <u>Shane Scrimshire</u>
STATIC WATER LEVEL (FT): <u>64.24</u>	MEASURING POINT DESCRIPTION: <u>Top of Casing</u>
WATER LEVEL MEASUREMENT METHOD: <u>Elec. Probe</u>	PURGE METHOD: <u>Redi-Flow 2</u>
TIME START PURGE: <u>1337</u>	PURGE DEPTH (FT) <u>77'</u>
TIME END PURGE: <u>1410</u>	
TIME SAMPLED: <u>1413</u>	
COMMENTS:	

WELL VOLUME CALCULATION (FILL IN BEFORE PURGING)	TOTAL DEPTH (FT)	DEPTH TO WATER (FT)	WATER COLUMN (FT)	X	MULTIPLIER FOR CASING DIAMETER (IN)			$\times 3 = 49$ CASING VOLUME (GAL)
					2	4	6	
					0.16	0.64	1.44	
	<u>89.65</u>	<u>64.24</u>	<u>25.41</u>					<u>16.2 gal.</u>

TIME	1340	1347	1357	1401	1405	1408	1410
VOLUME PURGED (GAL)	5gal.	15gal.	25gal.	35gal.	45gal.	50gal.	55gal
PURGE RATE (GPM)	1.5gpm	1.5gpm	1.5gpm	1.5gpm	2gpm	2gpm	2gpm
TEMPERATURE (°C)	74.6	75.0	72.9	72.6	71.9	71.5	72.1
pH	7.09	7.25	7.26	7.26	7.24	7.25	7.25
SPECIFIC CONDUCTIVITY (micromhos) (uncorrected) cm	1403.	1392.	1273.	1261.	1258.	1241.	1252.
DISSOLVED OXYGEN (mg/L)							
eH(MV)Pt-AgCl ref.							
TURBIDITY/COLOR	Clear	Clear	Clear	clear	clear	clear	clear
ODOR	no	no	no	no	no	no	no
DEPTH OF PURGE INTAKE (FT)	77'	77'	77'	77'	77'	77'	77'
DEPTH TO WATER DURING PURGE (FT)	64.46	64.62	64.75	64.75	64.73	64.74	64.74
NUMBER OF CASING VOLUMES REMOVED							
DEWATERED?							

Groundwater Purge and Sample Form

Date: 3/4/96

Kennedy/Jenks Consultants

PROJECT NAME: <u>DAC</u>	WELL NUMBER: <u>WCC-6S</u>
PROJECT NUMBER: <u>944016.01</u>	PERSONNEL: <u>Shane Scrimshire</u>
STATIC WATER LEVEL (FT): <u>67.12</u>	MEASURING POINT DESCRIPTION: <u>Top of Casing</u>
WATER LEVEL MEASUREMENT METHOD: <u>Elec. Probe</u>	PURGE METHOD: <u>Redi-Flow 2</u>
TIME START PURGE: <u>1523</u>	PURGE DEPTH (FT) <u>77'</u>
TIME END PURGE: <u>1541</u>	
TIME SAMPLED: <u>1545</u>	
COMMENTS:	

WELL VOLUME CALCULATION (FILL IN BEFORE PURGING)	TOTAL DEPTH (FT)	DEPTH TO WATER (FT)	WATER COLUMN (FT)	MULTIPLIER FOR CASING DIAMETER (IN)			$\times 3 = 44$ CASING VOLUME (GAL)
				2	4	6	
				0.16	0.64	1.44	
	<u>89.19</u>	<u>67.12</u>	<u>23.07</u>				<u>14.76</u>

TIME	<u>1526</u>	<u>1529</u>	<u>1536</u>	<u>1539</u>	<u>1541</u>	
VOLUME PURGED (GAL)	<u>5gal.</u>	<u>15gal.</u>	<u>30gal.</u>	<u>40gal.</u>	<u>47gal.</u>	
PURGE RATE (GPM)	<u>2.5gpm</u>	<u>2.5gpm</u>	<u>2.5gpm</u>	<u>2.5gpm</u>	<u>2.5gpm</u>	
TEMPERATURE (°C)	<u>69.2</u>	<u>70.8</u>	<u>70.9</u>	<u>70.9</u>	<u>71.6</u>	
pH	<u>6.02</u>	<u>6.48</u>	<u>6.51</u>	<u>6.53</u>	<u>6.53</u>	
SPECIFIC CONDUCTIVITY (micromhos/cm) (uncorrected)	<u>749.</u>	<u>781.</u>	<u>863.</u>	<u>898.</u>	<u>912</u>	
DISSOLVED OXYGEN (mg/L)						
eH(MV)Pt-AgCl ref.						
TURBIDITY/COLOR	<u>Clear</u>	<u>Clear</u>	<u>Clear</u>	<u>Clear</u>	<u>Clear</u>	
ODOR	<u>Strong</u> <u>hyd. odor</u>					
DEPTH OF PURGE INTAKE (FT)	<u>77'</u>	<u>77'</u>	<u>77'</u>	<u>77'</u>	<u>77'</u>	
DEPTH TO WATER DURING PURGE (FT)	<u>67.85</u>	<u>68.32</u>	<u>68.50</u>	<u>68.48</u>	<u>68.48</u>	
NUMBER OF CASING VOLUMES REMOVED						
DEWATERED?						

Groundwater Purge and Sample Form

Date: 3/1/96

Kennedy/Jenks Consultants

PROJECT NAME: <u>DAC</u>	WELL NUMBER: <u>WCC-7S</u>
PROJECT NUMBER: <u>944016.01</u>	PERSONNEL: <u>Shane Scrimshire</u>
STATIC WATER LEVEL (FT): <u>64.75</u>	MEASURING POINT DESCRIPTION: _____
WATER LEVEL MEASUREMENT METHOD: <u>Elec. Probe</u>	PURGE METHOD: <u>Redi-Flow 2</u>
TIME START PURGE: <u>1405</u>	PURGE DEPTH (FT) <u>77'</u>
TIME END PURGE: <u>1425</u>	_____
TIME SAMPLED: <u>1430</u>	_____
COMMENTS: _____	

WELL VOLUME CALCULATION (FILL IN BEFORE PURGING)	TOTAL DEPTH (FT)	DEPTH TO WATER (FT)	WATER COLUMN (FT)	MULTIPLIER FOR CASING DIAMETER (IN)			$\times 3 = 46 \text{ gal.}$ CASING VOLUME (GAL)
				2	4	6	
				0.16	0.64	1.44	
	<u>89.00</u>	<u>64.75</u>	<u>24.25</u>				<u>15.52</u>

TIME	1406	1410	1414	1417	1421	1423	1425
VOLUME PURGED (GAL)	5gal.	15gal.	25gal.	35gal.	45gal.	50gal.	55gal.
PURGE RATE (GPM)	2.5gpm						
TEMPERATURE (°C)	73.9	74.7	74.7	74.7	73.9	73.5	73.1
pH	7.64	7.43	7.44	7.44	7.41	7.42	7.43
SPECIFIC CONDUCTIVITY (<u>micromhos</u>) (uncorrected) cm	1851.	1760.	1482.	1407	1305.	1255.	1256.
DISSOLVED OXYGEN (mg/L)							
eH(MV)Pt-AgCl ref.							
TURBIDITY/COLOR	Clear						
ODOR	No						
DEPTH OF PURGE INTAKE (FT)	77'	77'	77'	77'	77'	77'	77'
DEPTH TO WATER DURING PURGE (FT)	65.40	65.45	65.50	65.50	65.50	65.50	65.50
NUMBER OF CASING VOLUMES REMOVED							
DEWATERED?							

Groundwater Purge and Sample Form

Date: 3/1/96

Kennedy/Jenks Consultant

PROJECT NAME: DAC

WELL NUMBER: WCC-85

PROJECT NUMBER: 944016.01

PERSONNEL: Shane Scrimshire

STATIC WATER LEVEL (FT): 66.32

MEASURING POINT DESCRIPTION: Top of Casing

WATER LEVEL MEASUREMENT METHOD: Elec. Probe

PURGE METHOD: Redi-Flow 2

TIME START PURGE: 1522

PURGE DEPTH (FT) 77'

TIME END PURGE: 1539

TIME SAMPLED: 1604

COMMENTS:

WELL VOLUME CALCULATION (FILL IN BEFORE PURGING)	TOTAL DEPTH (FT)	DEPTH TO WATER (FT)	WATER COLUMN (FT)	MULTIPLIER FOR CASING DIAMETER (IN)			$x 3 = 44 \text{ gal.}$ CASING VOLUME (GAL)
				2	4	6	
				0.16	0.64	1.44	
	89.25	66.32	22.93				14.67

TIME	1527	1532	1535	1538	1539		
VOLUME PURGED (GAL)	10	20	30	40	45		
PURGE RATE (GPM)	3gpm	3gpm	3gpm	3gpm	3gpm		
TEMPERATURE (°C)	73.9	72.9	73.2	72.8	72.7		
pH	7.36	7.08	7.06	7.06	7.09		
SPECIFIC CONDUCTIVITY (micromhos/cm) (uncorrected)	1800.	1791.	1799.	1779.	1776.		
DISSOLVED OXYGEN (mg/L)							
eH(MV)Pt-AgCl ref.							
TURBIDITY/COLOR	Clear	Clear	Clear	Clear	Clear		
ODOR	No	No	No	No	No		
DEPTH OF PURGE INTAKE (FT)	77'	77'	77'	77'	77'		
DEPTH TO WATER DURING PURGE (FT)	67.20	67.32	67.35	67.40	67.40		
NUMBER OF CASING VOLUMES REMOVED							
DEWATERED?							

Groundwater Purge and Sample Form

Date: 2/29/96

Kennedy/Jenks Consultants

PROJECT NAME: <u>OAC</u>	WELL NUMBER: <u>WCC-95</u>
PROJECT NUMBER: <u>944016.01</u>	PERSONNEL: <u>Shane Scrimshire</u>
STATIC WATER LEVEL (FT): <u>63.50</u>	MEASURING POINT DESCRIPTION: <u>Top of Casing</u>
WATER LEVEL MEASUREMENT METHOD: <u>Elec. Probe</u>	PURGE METHOD: <u>Redi-Flow 2</u>
TIME START PURGE: <u>1520</u>	PURGE DEPTH (FT) <u>77'</u>
TIME END PURGE: <u>1540</u>	
TIME SAMPLED: <u>1544</u>	
COMMENTS:	

WELL VOLUME CALCULATION (FILL IN BEFORE PURGING)	TOTAL DEPTH (FT)	DEPTH TO WATER (FT)	WATER COLUMN (FT)	MULTIPLIER FOR CASING DIAMETER (IN)			$\times 3 = 49$ CASING VOLUME (GAL)
				2	4	6	
				0.16	0.64	1.44	
	<u>89.20</u>	<u>63.50</u>	<u>25.70</u>				<u>16.4</u>

TIME	<u>1522</u>	<u>1527</u>	<u>1532</u>	<u>1537</u>	<u>1540</u>	
VOLUME PURGED (GAL)	<u>5gal.</u>	<u>15gal.</u>	<u>30gal.</u>	<u>40gal.</u>	<u>50gal.</u>	
PURGE RATE (GPM)	<u>2.5gpm</u>	<u>2.5gpm</u>	<u>2.5gpm</u>	<u>2.5gpm</u>	<u>2.5gpm</u>	
TEMPERATURE (°C)	<u>67.6</u>	<u>69.2</u>	<u>68.2</u>	<u>68.6</u>	<u>67.8</u>	
pH	<u>7.50</u>	<u>7.40</u>	<u>7.36</u>	<u>7.40</u>	<u>7.45</u>	
SPECIFIC CONDUCTIVITY (micromhos) (uncorrected)	<u>1278.</u>	<u>1024.</u>	<u>1013.</u>	<u>1024.</u>	<u>1016.</u>	
DISSOLVED OXYGEN (mg/L)						
eH(MV)Pt-AgCl ref.						
TURBIDITY/COLOR	<u>Clear</u>	<u>Clear</u>	<u>Clear</u>	<u>Clear</u>	<u>Clear</u>	
ODOR	<u>No</u>	<u>No</u>	<u>No</u>	<u>No</u>	<u>No</u>	
DEPTH OF PURGE INTAKE (FT)	<u>77'</u>	<u>77'</u>	<u>77'</u>	<u>77'</u>	<u>77'</u>	
DEPTH TO WATER DURING PURGE (FT)	<u>64.40</u>	<u>64.45</u>	<u>64.44</u>	<u>64.44</u>	<u>64.44</u>	
NUMBER OF CASING VOLUMES REMOVED						
DEWATERED?						

Groundwater Purge and Sample Form

Date: 3/1/96

Kennedy/Jenks Consultants

PROJECT NAME: <u>DAC</u>	WELL NUMBER: <u>WCC-105</u>
PROJECT NUMBER: <u>944016.01</u>	PERSONNEL: <u>Shane Scrimshire</u>
STATIC WATER LEVEL (FT): <u>66.35</u>	MEASURING POINT DESCRIPTION: <u>Top of Casing</u>
WATER LEVEL MEASUREMENT METHOD: <u>Elec. Probe</u>	PURGE METHOD: <u>Redi-flow 2</u>
TIME START PURGE: <u>827</u>	PURGE DEPTH (FT) <u>77'</u>
TIME END PURGE: <u>848</u>	
TIME SAMPLED: <u>852</u>	
COMMENTS:	

WELL VOLUME CALCULATION (FILL IN BEFORE PURGING)	TOTAL DEPTH (FT)	DEPTH TO WATER (FT)	WATER COLUMN (FT)	MULTIPLIER FOR CASING DIAMETER (IN)			$\times 3 = 44 \text{ gal.}$ CASING VOLUME (GAL)
				2	4	6	
				0.16	0.64	1.44	
	<u>89.50</u>	<u>66.35</u>	<u>23.15</u>				<u>14.81</u>

TIME	829	834	840	843	848	
VOLUME PURGED (GAL)	5gal.	15gal.	25gal.	35gal.	45gal.	
PURGE RATE (GPM)	2gpm	2gpm	2gpm	2gpm	2gpm	
TEMPERATURE (°C)	66.2	70.6	72.3	72.3	71.8	
pH	7.20	7.36	7.36	7.33	7.33	
SPECIFIC CONDUCTIVITY (micromhos) (uncorrected) cm	855.	890.	902.	908.	914.	
DISSOLVED OXYGEN (mg/L)						
eH(MV)Pt-AgCl ref.						
TURBIDITY/COLOR	Clear	Clear	Clear	Clear	Clear	
ODOR	NO	NO	NO	NO	NO	
DEPTH OF PURGE INTAKE (FT)	77'	77'	77'	77'	77'	
DEPTH TO WATER DURING PURGE (FT)	67.40	67.45	67.55	67.60	67.60	
NUMBER OF CASING VOLUMES REMOVED						
DEWATERED?						

Groundwater Purge and Sample Form

Date: 3/1/96

Kennedy/Jenks Consultants

PROJECT NAME: <u>DAC</u>	WELL NUMBER: <u>WCC-115</u>
PROJECT NUMBER: <u>944016.01</u>	PERSONNEL: <u>Shane Scrimshire</u>
STATIC WATER LEVEL (FT): <u>65.16</u>	MEASURING POINT DESCRIPTION: <u>Top of Casing</u>
WATER LEVEL MEASUREMENT METHOD: <u>Elec. Probe</u>	PURGE METHOD: <u>Redi-Flow 2</u>
TIME START PURGE: <u>1035</u>	PURGE DEPTH (FT) <u>77'</u>
TIME END PURGE: <u>1049</u>	
TIME SAMPLED: <u>1053</u>	
COMMENTS:	

WELL VOLUME CALCULATION (FILL IN BEFORE PURGING)	TOTAL DEPTH (FT)	DEPTH TO WATER (FT)	WATER COLUMN (FT)	MULTIPLIER FOR CASING DIAMETER (IN)			$\times 3 = 46 \text{ gal.}$ CASING VOLUME (GAL)
				2	4	6	
				0.16	0.64	1.44	
	<u>89.30</u>	<u>65.16</u>	<u>24.14</u>				<u>1544</u>

TIME	1037	1040	1043	1046	1049	
VOLUME PURGED (GAL)	5gal.	15gal.	25gal.	35gal.	45gal.	
PURGE RATE (GPM)	3gpm	3gpm	3gpm	3gpm	3gpm	
TEMPERATURE (°C)	73.8	72.6	72.3	72.2	72.1	
pH	7.53	7.40	7.40	7.39	7.40	
SPECIFIC CONDUCTIVITY (micromhos) (uncorrected) cm	1268.	1250.	1250.	1252.	1270.	
DISSOLVED OXYGEN (mg/L)						
eH(MV)Pt-AgCl ref.						
TURBIDITY/COLOR	Clear	Clear	Clear	Clear	Clear	
ODOR	No	No	No	No	No	
DEPTH OF PURGE INTAKE (FT)	77'	77'	77'	77'	77'	
DEPTH TO WATER DURING PURGE (FT)	69.45	69.75	69.95	70.05	70.15	
NUMBER OF CASING VOLUMES REMOVED						
DEWATERED?						

Groundwater Purge and Sample Form

Date: 3/1/96

Kennedy/Jenks Consultants

PROJECT NAME: <u>DAC</u>	WELL NUMBER: <u>WCC-125</u>
PROJECT NUMBER: <u>944016.01</u>	PERSONNEL: <u>Shane Scrimshire</u>
STATIC WATER LEVEL (FT): <u>63.32</u>	MEASURING POINT DESCRIPTION: <u>Top of Casing</u>
WATER LEVEL MEASUREMENT METHOD: <u>Elec. Probe</u>	PURGE METHOD: <u>Redi-Flow 2</u>
TIME START PURGE: <u>1134</u>	PURGE DEPTH (FT) <u>77'</u>
TIME END PURGE: <u>1152</u>	
TIME SAMPLED: <u>1156</u>	
COMMENTS:	

WELL VOLUME CALCULATION (FILL IN BEFORE PURGING)	TOTAL DEPTH (FT)	DEPTH TO WATER (FT)	WATER COLUMN (FT)	X	MULTIPLIER FOR CASING DIAMETER (IN)			$\times 3 = 50 \text{ gal.}$ CASING VOLUME (GAL)
					2	4	6	
	<u>89.20</u>	<u>63.32</u>	<u>25.88</u>		0.16	0.64	1.44	<u>16.5</u>

TIME	1136	1140	1144	1148	1152		
VOLUME PURGED (GAL)	5gal.	15gal.	25gal.	40gal.	50gal.		
PURGE RATE (GPM)	2.5gpm	2.5gpm	2.5gpm	2.5gpm	2.5gpm		
TEMPERATURE (°C)	78.8	78.0	77.4	76.9	76.3		
pH	7.75	7.51	7.52	7.51	7.45		
SPECIFIC CONDUCTIVITY (micromhos/cm) (uncorrected)	1453.	1344.	1255.	1239.	1251		
DISSOLVED OXYGEN (mg/L)							
eH(MV)Pt-AgCl ref.							
TURBIDITY/COLOR	Clear	Clear	Clear	Clear	Clear		
ODOR	No	No	No	No	No		
DEPTH OF PURGE INTAKE (FT)	77'	77'	77'	77'	77'		
DEPTH TO WATER DURING PURGE (FT)	65.05	65.05	65.15	65.20	65.21		
NUMBER OF CASING VOLUMES REMOVED							
DEWATERED?							

Groundwater Purge and Sample Form

Date: 3/4/96

Kennedy/Jenks Consultants

PROJECT NAME: <u>DAC</u>	WELL NUMBER: <u>DAC - P1</u>							
PROJECT NUMBER: <u>944016.01</u>	PERSONNEL: <u>Shane Scrimshire</u>							
STATIC WATER LEVEL (FT): <u>67.84</u>	MEASURING POINT DESCRIPTION: <u>Top of Casing</u>							
WATER LEVEL MEASUREMENT METHOD: <u>Elec. Probe</u>	PURGE METHOD: <u>Recirc-Flow 2</u>							
TIME START PURGE: <u>1634</u>	PURGE DEPTH (FT) <u>88'</u>							
TIME END PURGE: <u>1707</u>								
TIME SAMPLED: <u>1712</u>								
COMMENTS: <u>Battery in pH, cond, temp meter is getting low.</u> <u>Parameters not stabilizing stabilizing as quickly as they</u> <u>should because of low battery.</u>								
WELL VOLUME CALCULATION (FILL IN BEFORE PURGING)	TOTAL DEPTH (FT)	DEPTH TO WATER (FT)	WATER COLUMN (FT)	MULTIPLIER FOR CASING DIAMETER (IN)			$\times 3 = 42$	CASING VOLUME (GAL)
				X	2	4		
	<u>89.90</u>	<u>67.84</u>	<u>22.06</u>		<u>0.16</u>	<u>0.64</u>	<u>1.44</u>	<u>14.11</u>
TIME	<u>1639</u>	<u>1644</u>	<u>1652</u>	<u>1659</u>	<u>1707</u>			
VOLUME PURGED (GAL)	<u>5gal.</u>	<u>15gal.</u>	<u>25gal.</u>	<u>35gal.</u>	<u>45gal.</u>			
PURGE RATE (GPM)	<u>1.5gpm</u>	<u>1.5gpm</u>	<u>1.5gpm</u>	<u>1.5gpm</u>	<u>1.5gpm</u>			
TEMPERATURE (°C)	<u>70.3</u>	<u>69.6</u>	<u>70.8</u>	<u>71.0</u>	<u>71.3</u>			
pH	<u>8.31</u>	<u>8.50</u>	<u>8.36</u>	<u>8.35</u>	<u>8.40</u>			
SPECIFIC CONDUCTIVITY (<u>micromhos</u>) (uncorrected) cm	<u>865</u>	<u>791.</u>	<u>880.</u>	<u>938</u>	<u>940.</u>			
DISSOLVED OXYGEN (mg/L)								
eH(MV)Pt-AgCl ref.								
TURBIDITY/COLOR	<u>Clear</u>	<u>Clear</u>	<u>Clear</u>	<u>Clear</u>	<u>Clear</u>			
ODOR	<u>No</u>	<u>No</u>	<u>No</u>	<u>No</u>	<u>No</u>			
DEPTH OF PURGE INTAKE (FT)	<u>88'</u>	<u>88'</u>	<u>88'</u>	<u>88'</u>	<u>88'</u>			
DEPTH TO WATER DURING PURGE (FT)	<u>70.10</u>	<u>70.0</u>	<u>69.90</u>	<u>69.95</u>	<u>69.92</u>			
NUMBER OF CASING VOLUMES REMOVED								
DEWATERED?								

Groundwater Purge and Sample Form

Date: 2/29/96

Kennedy/Jenks Consultants

PROJECT NAME: <u>DAC</u>	WELL NUMBER: <u>WCC-117</u>
PROJECT NUMBER: <u>944016.01</u>	PERSONNEL: <u>Stone Scrimshire</u>
STATIC WATER LEVEL (FT): <u>66.60</u>	MEASURING POINT DESCRIPTION: <u>Top of Casing</u>
WATER LEVEL MEASUREMENT METHOD: <u>Elec. Probe</u>	PURGE METHOD: <u>Redi-Flow 2</u>
TIME START PURGE: <u>1655</u>	PURGE DEPTH (FT) <u>90'</u>
TIME END PURGE: <u>1735</u>	
TIME SAMPLED: <u>1740</u>	
COMMENTS:	

WELL VOLUME CALCULATION (FILL IN BEFORE PURGING)	TOTAL DEPTH (FT)	DEPTH TO WATER (FT)	WATER COLUMN (FT)	MULTIPLIER FOR CASING DIAMETER (IN)			$\times 3 = 13.2$ CASING VOLUME (GAL)
				2	4	6	
				0.16	0.64	1.44	
	<u>135.75</u>	<u>66.60</u>	<u>69.15</u>				<u>44.25</u>

TIME	1657	1710	1721	1731	1735	
VOLUME PURGED (GAL)	10 gal.	40 gal.	80 gal.	120 gal.	135 gal.	
PURGE RATE (GPM)	3 gpm	3 gpm	4 gpm	4 gpm	4 gpm	
TEMPERATURE (°C)	66.6	70.5	70.0	68.7	70.3	
pH	7.67	7.64	7.69	7.70	7.69	
SPECIFIC CONDUCTIVITY (micromhos) (uncorrected) cm	661.	715.	676.	665.	673.	
DISSOLVED OXYGEN (mg/L)						
eH(MV)Pt-AgCl ref.						
TURBIDITY/COLOR	Clear	Clear	Clear	Clear	Clear	
ODOR	No	No	No	No	No	
DEPTH OF PURGE INTAKE (FT)	90'	90'	90'	90'	90'	
DEPTH TO WATER DURING PURGE (FT)	70.55	71.00	71.98	71.95	71.95	
NUMBER OF CASING VOLUMES REMOVED						
DEWATERED?						

Groundwater Purge and Sample Form

Date: 2/4/96

Kennedy/Jenks Consultants

PROJECT NAME: <u>DAC</u>	WELL NUMBER: <u>WCC-3D</u>
PROJECT NUMBER: <u>944016.01</u>	PERSONNEL: <u>Shane Scrimshire</u>
STATIC WATER LEVEL (FT): <u>67.13</u>	MEASURING POINT DESCRIPTION: <u>Top of Casing</u>
WATER LEVEL MEASUREMENT METHOD: <u>Elec. Probe</u>	PURGE METHOD: <u>Redi-Flow 2</u>
TIME START PURGE: <u>1230</u>	PURGE DEPTH (FT) <u>135'</u>
TIME END PURGE: <u>1330</u>	
TIME SAMPLED: <u>1335</u>	
COMMENTS:	

WELL VOLUME CALCULATION (FILL IN BEFORE PURGING)	TOTAL DEPTH (FT)	DEPTH TO WATER (FT)	WATER COLUMN (FT)	MULTIPLIER FOR CASING DIAMETER (IN)			$\times 3 = 138$ CASING VOLUME (GAL)
				2	4	6	
				0.16	0.64	1.44	
	<u>138.81</u>	<u>67.13</u>	<u>71.68</u>				<u>45.87</u>

TIME	1234	1245	1305	1320	1330	
VOLUME PURGED (GAL)	<u>10gal.</u>	<u>40gal.</u>	<u>80gal.</u>	<u>120gal.</u>	<u>140gal.</u>	
PURGE RATE (GPM)						
TEMPERATURE (°C)	<u>75.6</u>	<u>70.7</u>	<u>69.7</u>	<u>68.9</u>	<u>69.7</u>	
pH	<u>7.81</u>	<u>7.70</u>	<u>7.48</u>	<u>7.37</u>	<u>7.34</u>	
SPECIFIC CONDUCTIVITY (micromhos) (uncorrected) cm	<u>731.</u>	<u>671.</u>	<u>615.</u>	<u>610.</u>	<u>615.</u>	
DISSOLVED OXYGEN (mg/L)						
eH(MV)Pt-AgCl ref.						
TURBIDITY/COLOR	<u>Clear</u>	<u>Clear</u>	<u>Clear</u>	<u>Clear</u>	<u>Clear</u>	
ODOR	<u>No</u>	<u>No</u>	<u>No</u>	<u>No</u>	<u>No</u>	
DEPTH OF PURGE INTAKE (FT)	<u>135'</u>	<u>135'</u>	<u>135'</u>	<u>135'</u>	<u>135'</u>	
DEPTH TO WATER DURING PURGE (FT)	<u>78.50</u>	<u>90.53</u>	<u>93.40</u>	<u>93.65</u>	<u>93.70</u>	
NUMBER OF CASING VOLUMES REMOVED						
DEWATERED?						

APPENDIX D
CHAIN-OF-CUSTODY RECORDS

